APTI PLUS OAS GAZETTE

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APTI PLUS
Academy for Civil Services Pvt. Ltd.
CREATING CIVIL SERVANTS FOR THE NATION

20TH EDITION

All Odisha Elephant Census 2024

Udayagiri and Khandagiri Caves

Indian Navy Day celebrations in Puri

RERA Projects in Odisha

Dongria Kondh Tribe

COMPREHENSIVE COVERAGE OF CURRENT AFFAIRS FOR ODISHA STATE CIVIL SERVICES EXAMS

CONTENT

COMPREHENSIVE COVERAGE OF CURRENT AFFAIRS FOR ODISHA STATE CIVIL SERVICES EXAMS

Odisha Current Affairs

SCHEMES IN NEWS

Schemes Renamed and Discontinued

Context
- The Mohan Majhi-led BJP government announced plans to rename 21 schemes previously implemented under the Naveen Patnaik administration.

Major Changes:
- **KALIA Scheme** renamed as PM-KISAN.
- **LAccMI** initiative renamed as **Gramanchal Paribahan**.

Discontinued Schemes:
- Notable schemes under the BJD government, such as Biju Swasthya Kalyan Yojana, Biju Pucca Ghar, and Biju Sishu Surakhya Yojana, have been phased out.

> The KALIA Scheme (Krushak Assistance for Livelihood and Income Augmentation) aims to boost agricultural prosperity. Key provisions included ₹10,000 annually for cultivators (₹5,000 each for Kharif and Rabi), interest-free crop loans up to ₹50,000, ₹12,500 for landless households for allied activities, and ₹10,000 annually for the elderly and differently-abled. Additionally, it offers ₹2 lakh life and accident insurance for 57 lakh households.
>
> The Location Accessible Multi-modal Initiative (LAccMI) scheme sought to establish a continuous public transport network. The network includes Block, District, 'Jagannath Express' (District to Bhubaneswar/Puri), and 'LAccMI Express' (inter-district connectivity).

Prani Sampad Samruddhi Yojana

Context
- Recently, Odisha Government introduced the Prani Sampad Samruddhi Yojana.

Details
- The scheme aims to boost the livestock sector in the state by focusing on poultry development.

Key features of the scheme:
- **Focus on Poultry Development**: The scheme will **primarily focus on promoting poultry farming in Odisha.**
- **Financial Allocation**: The scheme has been allocated a budget of Rs 1,031.19 crore for a **period of five years (2024-2029).**
- **Beneficiaries**: The scheme is expected to benefit approximately 3,73,928 farmers, including women self-help groups (WSHGs).
- **Production Boost**: The implementation of the scheme is expected to lead to an additional production of about 95.98 million tonnes of meat per year and 5.5 lakh eggs per day.

Debalaya Yojana

Context
- The Odisha government has introduced the **Debalaya Yojana**.

About Debalaya Yojana
- **Debalaya Yojana is** a comprehensive initiative aimed at preserving and improving the operational efficiency of temples and mutts across the state. This scheme addresses the challenges related to maintenance, security, and management faced by these religious institutions.

Key Objectives of the Scheme
- **Preserve and restore** temples and mutts.
- **Enhance security** measures at these cultural landmarks.
- **Improve operational management** and address longstanding issues in their functioning.

Evolution of Heritage Initiatives
- The **Debalaya Yojana** builds on the legacy of previous programs, such as the **Augmentation of Basic Amenities and Development of Heritage and Architecture (ABADHA)**, which focused primarily on repair work.
- Unlike ABADHA, Debalaya aims to offer a more holistic solution, incorporating **repair**, **restoration**, **security**, and **management** improvements.

Financial Support and Allocation
- The Odisha government currently provides annual financial assistance of **5 to 7 crore rupees** for around **5,000 temples**.
- Under **Debalaya Yojana**, funding will increase significantly, with **10 to 12 crore rupees** allocated annually for approximately **18,000 temples**.

Subhadra Yojana

Context
- The Odisha state government disbursed the third phase of the first instalment of Rs 5,000 each to over 20 lakh women as part of the Subhadra Yojana.

Details
- **Subhadra Yojana was** launched on **September 17, 2024**, coinciding with PM Narendra Modi's 74th birthday.

Purpose:
- Aimed at providing direct financial assistance to women beneficiaries in Odisha, aged **21 to 60 years**, to enhance their financial independence and support socio-economic empowerment.

Beneficiary Details:
- **Annual Assistance:** ₹10,000 per year in two

instalments of ₹5,000 each, disbursed on: **Rakhi Purnima (August)** and **International Women's Day (March 8).**

Exclusions:
- Economically well-off families, government employees, income-tax payees.
- Women receiving **₹1,500/month or more** under other government schemes.

Implementation Mechanism
- **Direct Benefit Transfer (DBT):** Funds deposited into Aadhaar-enabled single-holder bank accounts.
- **Subhadra Debit Card:** Issued to beneficiaries for ease of transactions.
- **Incentives for Digital Transactions:** Top 100 women in each gram panchayat/urban area with maximum digital transactions receive an additional ₹500.

Gomata Scheme
Context:
- The Odisha Cabinet has approved Rs 342.65 crore for the **Goal for Management and Treatment of Animals (Gomata)** Scheme.
- The scheme will be implemented over three years to support livestock farmers.

Objectives:
- Provide veterinary services to livestock farmers.
- Focus on treatment, vaccination, disease control, and surveillance.
- Vaccinate 2.5 crore livestock and treat 1.3 crore livestock annually.

Poultry Development Sub-Scheme:
- Part of the **Prani Sampad Samruddhi Yojana** with an outlay of Rs 1,031.19 crore.
- To be implemented over five years, starting from 2024-25.
- Expected to benefit 3,73,928 farmers, including women self-help groups.
- Projected increase in meat production: 95.98 million tonnes per year.
- Projected increase in egg production: 5.5 lakh eggs per day.

Key Features of GOMATA Scheme:
- **Veterinary Services:** Treatment, vaccination, disease control, and surveillance for livestock.
- **Door-to-Door Delivery:** Veterinary services will be provided through mobile veterinary units directly to farmers' doorsteps.
- **Vaccination and Treatment:** The scheme aims to vaccinate 2.5 crore livestock and treat 1.3 crore annually.
- **Support to Institutions:** Rs 31.35 crore will be allocated to support vaccine production and disease control institutions.
- **Mobile Veterinary Units:** Rs 60.77 crore will be

allocated for setting up mobile veterinary units to reach rural areas.
- **Livestock Healthcare:** Rs 220 crore will be invested in improving livestock healthcare services.
- **Block-Level Delivery:** Rs 30.52 crore will be used to strengthen livestock and animal husbandry programs at the block level.

Review of PM-Poshan Scheme by Odisha
Context
- The **School and Mass Education Department of Odisha** has formed a committee to review and enhance the implementation of the **Pradhan Mantri Poshan Shakti Nirman Yojana (PM POSHAN).**

Details
- The committee, led by the state's nodal officer and comprising members from the **National Institute of Nutrition**, **World Food Programme**, **Health and Family Welfare department**, and **Director of Secondary Education, Odisha**, will evaluate the current provisions and suggest improvements for better implementation.
- Earlier this year, the state government increased the midday meal value by Rs 1 to promote nutrition and boost school attendance. The cost of meals for primary students was raised to Rs 6.90 and for upper primary students to Rs 9.82, benefiting around **43 lakh students** across **government and government-aided schools** in Odisha. Currently, over **45 lakh students** in **50,485 schools** receive cooked meals, including dishes like rice with dalma, soya bean curry, and egg curry as part of the program.

PM-POSHAN Scheme:
- The **Midday Meal Scheme**, now renamed **PM-POSHAN (Pradhan Mantri Poshan Shakti Nirman)** in September 2021, provides free meals to children in **government** and **government-aided schools**.
- Initially launched in **Tamil Nadu** in the 1960s, it became a nationwide programme in 2002, covering over **120 million children** across **1.27 million schools**.

Key Features:
- **Hot cooked meals** for students in **Classes I-VIII** (2021-2026).
- **Tithi Bhojan**: **Community participation** for special meals on festivals.
- **Nutrition Gardens** in schools to enhance learning and nutrition.
- Mandatory **social audits** and **health monitoring** (**BMI**, weight, hemoglobin).
- Focus on **anemia** and **supplementary nutrition** in **aspirational districts**.

- Involvement of local **FPOs** and **Women Self Help Groups**.
- Promotion of **locally grown food** and **economic growth**.
- Transition to **Direct Benefit Transfer (DBT)** for payments.

This centrally-sponsored scheme aims to improve nutrition and education outcomes for schoolchildren, especially in underserved regions.

OTHERS

All-Odisha Elephant Census 2024

Context

- The **All-Odisha Elephant Census 2024 (winter) was released.**

Key Findings:

- **Population Distribution:** Odisha is home to **2,103 elephants**, comprising **474 males**, **1,030 females**, and **599 young elephants** (juveniles and calves).
- **Gender Ratio Shift:** The **male-to-female-to-young ratio** changed to **1:1.83:1.08** from **1:2.17:1.25** in the summer census due to an increase in **sub-adult males**.
- **Inter-State Movements:** Significant migration from **Jharkhand**, **West Bengal**, **Andhra Pradesh**, and **Chhattisgarh** during winter.
- **Regional Concentrations:** Highest populations recorded in **Dhenkanal (291)**, **Keonjhar (160)**, **Athagarh (124)**, and **Deogarh (123)**. No evidence of elephants in **13 divisions**, including **Koraput**, **Jeypore**, and **Malkangiri**.
- **Regional Trends:** Rising populations in **Rourkela**, **Sambalpur**, and **Kalahandi**; declines in **Similipal North**, **Satkosia**, and **Rayagada** due to **seasonal movements**.
- **Mortality:48 deaths** reported since May 2024, underscoring the need for robust conservation measures.

Odisha's Ecosystem Services

Context

- **Odisha's ecosystem services** are valued at **₹36,890 crore ($5 billion)**, highlighting the socio-economic importance of **five million hectares of land commons**, including **forests and pastures**.
- The study was conducted jointly by the **Foundation for Ecological Security (FES)**, **International Food Policy Research Institute (IFPRI)**, **Federation University (Australia)**, and **Common Grounds**.

Threats to Land Commons

- **Degradation**, **overuse**, **inadequate management**, and **encroachments** are critical threats to land commons.
- **Degradation** leads to **biodiversity loss**, **soil erosion**, **water quality issues**, and **environmental challenges**.

Economic Dependency and Vulnerability

- **Odisha** heavily relies on **agricultural and natural resources**, making it highly vulnerable to **climate change impacts** such as **cyclones**, **floods**, and **droughts**.
- A population of **36 million** depends on these resources for **sustenance** and **economic activities**.

Land Commons and Ecosystem Services

- **Odisha's land commons** include **forests**, **pastures**, and **uncultivated lands**, offering key **ecosystem services** like **food**, **water**, **raw materials**, and **climate regulation**.

Valuation of Ecosystem Services

- **Tangible benefits** like **food**, **water**, and **raw materials**: **₹65,411/hectare/year**.
- **Climate regulation services** (e.g., **soil fertility**, **water purification**): **₹60,698/hectare/year**.
- **Supporting services** (**soil formation**, **habitat provision**): **₹24,078/hectare/year**.
- **Cultural services** (**spiritual**, **cognitive**): **₹4,456/hectare/year**.

Key Recommendations

- **Legal and institutional reforms** to ensure sustainable management of **land commons**.
- **Community-based management practices** to safeguard **ecosystem services**.
- Incorporating the **economic value of land commons** into **policymaking** and **land acquisition processes** for better **resource protection**.

Olive Ridley Sea Turtles

Context

- Every year, from November to March, Odisha's coastline becomes a vital nesting ground for Olive Ridley SeaTurtles.

Key Nesting Sites

- Chandipur (Parikhi, Hanskura, Chaumukh, Talpada) and Jaleswar (Talasari, Muralichadha, Kirtaniya).

Rising Nesting Statistics:

- 2020-21: 2 turtles, 305 hatchlings.
- 2023-24: 71 turtles, 5,463 hatchlings.

Olive Ridley

Aspect	Details
Scientific Name	*Lepidochelys olivacea*
Common Name	Olive Ridley Sea Turtle, Pacific Ridley Sea Turtle
Family	Cheloniidae
Size	Carapace length ~61 cm (2 ft); Weight ~50 kg (110 lb)
Carapace Color	Olive green, heart-shaped, with 6–8 lateral scutes per side
Habitat	Warm and tropical waters of the Pacific, Indian, and Atlantic Oceans
Distribution	Circumtropical: Coasts of India, Arabia, Australia, New Zealand, Africa, and the Americas
Nesting Behavior	**Arribadas**: Mass synchronized nesting. Solitary nesting
Major Nesting Sites	Odisha (India), Mexico, Costa Rica
Reproduction	Females return to natal beaches. Conical nests ~1.5 ft deep
Diet	Omnivorous: Feeds on algae, jellyfish, shrimp, crabs, and small invertebrates
Threats	Habitat destruction; Pollution (e.g., pesticides, industrial discharge) Bycatch in fishing gear
Conservation Status	**Endangered** (IUCN Red List)
Legal Protections	All five sea turtle species in India are included in **Schedule I of the Indian Wildlife Protection Act, 1972**. Listed in **Appendix I of CITES**, prohibiting international trade in turtle products.
Unique Features	Synchronised arribadas Variable lateral scute counts Paddle-like limbs with two anterior claws

Fishing Ban to protect Olive Ridley Turtles
Context
- To safeguard the nesting and hatching of Olive Ridley turtles, **Odisha has implemented a seven-month fishing restriction.**
- This includes a complete **ban on motorized boats and trawlers within a 20-kilometer radius of key nesting sites.**

Key Nesting Areas and Threats
- **Primary Nesting Locations:** The turtles primarily nest along the beaches of Devi River, Rushikulya estuary, and Gahirmatha Marine Sanctuary.
- **Threats from Fishing Activities:** The fishing operations during the turtles' nesting season pose significant threats, such as accidental entanglement in nets and disruption of nesting grounds.

Restrictions
- **Puri District Alert:** In Puri, especially around the Devi River estuary, the Fisheries Department has warned trawler operators of legal consequences for violations.
- **No-Fishing Zone in Kendrapada**
- **Gahirmatha Marine Sanctuary:** A year-round no-fishing zone in Kendrapada is further enforced with extended seasonal restrictions, covering the entire 20-kilometer coastline.
- **Protection Efforts:** The Rajnagar Wildlife Division has set up 14 turtle protection camps.

Fluctuations in Turtle Numbers
- **Historical Nesting Data:** Turtle nesting numbers fluctuate significantly from year to year, with some years seeing a sharp decline:
  - ✓ 2016-17: 9.75 lakh turtles.
  - ✓ 2017-18: 11.10 lakh turtles.
  - ✓ 2018-19: 4.51 lakh turtles.
  - ✓ 2021-22: 10.51 lakh turtles.
- **Environmental Concerns:** Factors such as climate change, pollution, and illegal fishing practices are contributing to these fluctuations, demanding urgent conservation measures.

Gandhamardan Hills
Context
- The Odisha state government dismissed allegations that it plans to permit bauxite mining in the ecologically sensitive **Gandhamardan Hills.**

Gandhamardan Hills
- **Location**: Between Bolangir and Bargarh districts, Odisha.
- **Ecological Significance**: Known for rich biodiversity and medicinal plants (220 species.
- **Medicinal Value**: Plants like *Rauvolfia serpentina* **and** *Plumbago zeylanica* are found here.
- **Traditional Healthcare**: 100+ practitioners serve 50,000 tribal people.
- **Economic Role**: Local communities supply herbs to companies like Dabur and Zandu.
- **Conservation**: Local communities have protected the region from corporate exploitation, preserving its biodiversity.

59th All India Conference of Director Generals/Inspector Generals of Police 2024
Context
- The **59th All India Conference of Director**

Generals/Inspector Generals of Police **(DGsP/IGsP)** is being held from **Nov 29 to Dec 1,** at the **State Convention Centre, Lok Seva Bhawan, Bhubaneswar, Odisha**.

Themes and Focus Areas:
- Cyber Crime and Technology in Policing, Counter-Terrorism and Left-Wing Extremism, Prison Reforms and Coastal Security, Roadmap for implementing new **Criminal Laws**.

Inception of the Conference:
- Organized first by the **Intelligence Bureau (IB)** in **1920**.
- Post-independence, the first conference was inaugurated by **Sardar Vallabhbhai Patel** on **January 12, 1950**.

Evolution:
- Initially a biennial event, it became an annual meeting in **1973** for heads of state and central police organizations.

Prime Minister's Initiative (2014-Present):
- Hosted in various states, such as **Guwahati, Rann of Kachchh, Hyderabad, Pune, Lucknow, Jaipur**, to enhance inclusivity and regional representation.

Objective of the Conference
- The primary aim of the conference is to strengthen India's national security by addressing pressing challenges in crime control, law enforcement, and internal security.

Participation
- The conference hosts top dignitaries, including the Prime Minister, Union Home Minister, and National Security Adviser, along with DGPs, IGPs, and chiefs of central police organizations.
- It also honors excellence in law enforcement **with the President's Police Medal.**

Potato Production in Odisha

Context
- **Potato prices** increased marginally in **Odisha** during the last two days as **West Bengal** has imposed restrictions on the supply of kitchen essentials to the state.

Potato Production in Odisha
- Odisha's **potato production** is just **3 lakh MT** annually, far below its **demand of 13 lakh MT**.
- Regions like **Kandhamal, Koraput**, and **Kalahandi** contribute most of the state's production, forcing **Odisha to import 90%** of its supply.

Persistent Crisis and Initiatives
- Despite efforts to become **potato-surplus** in **2015**, Odisha missed its targets.
- Cultivated area increased marginally to **25,000 hectares** by **2020-21**, with production rising slightly to **3.09 lakh MT**.
- Key hurdles include **inadequate cold storage**—only **36 functional** out of **133**—and **weak market linkages**, causing farmer distress.

Further Details
- **West Bengal**, producing **23.51% of India's potatoes**, is a crucial supplier for Odisha, which produces only **3 lakh metric tons (MT)** annually against a **demand of 13 lakh MT**.
- Odisha's earlier attempts to achieve **potato self-sufficiency** through the **2015 Potato Mission** faltered due to **inadequate cold storage** and **poor market linkages**. Currently, only **36 of 133 cold storage units** in the state are operational.
- To address the crisis, the **Odisha government** is procuring potatoes from **Uttar Pradesh via NAFED** to supply them at **₹30/kg** in select cities, aiming to stabilize **prices** and ease **public distress**.

Sr No.	State	Indian Production of POTATO 2021-22 Production	Share(%)
1	Uttar Pradesh	15,892.00	29.65
2	West Bengal	12,600.00	23.51
3	Bihar	9,125.80	17.02
4	Gujarat	3,780.00	7.05
5	Madhya Pradesh	3,582.00	6.68
6	Punjab	2,850.00	5.32
7	Haryana	765.90	1.43
8	Assam	761.84	1.42
9	Jharkhand	733.77	1.37
10	Chattisgarh	623.65	1.16
	Page Total	50,714.96	

Odisha's Centre for Elephant Conservation

Context
- Odisha has approved the establishment of the **Centre for Species Survival (CSS) of Asian Elephants near Bhubaneswar, aimed at boosting elephant conservation in South and Southeast Asia.**

Collaboration
- The centre, <u>located in Chandaka wildlife division,</u> is a partnership between Odisha's Forest department, International Union for Conservation of Nature -SSC, and Wildlife Trust of India.

Conservation Goals
- Enhance protection of <u>Asian elephants in 13 countries.</u>
- Address key challenges like <u>elephant corridors, human-wildlife conflict, and training forest staff.</u>
- Integrate scientific and cultural knowledge for broader conservation efforts.

Management Structure
- A seven-member governing council, led by the PCCF (wildlife), will oversee the centre's operations.
- **Note:** PCCF stands for Principal Chief Conservator of Forests, which is the highest rank in the Indian Forest Service (IFS) for an officer in a state. The PCCF is also known as the Head of Forest Force (HoFF).

> ### Chandaka Dampara Wildlife Sanctuary
> The **Chandaka Dampara Wildlife Sanctuary**, established in 1982, covers 193 sq km in Odisha's **Khurda** and **Cuttack** districts, strategically located near **Bhubaneswar**. The sanctuary features diverse habitats, including moist deciduous forests, bamboo groves, and medicinal plants. It is home to a rich variety of wildlife, such as the **Indian Elephant**, **Indian Leopard**, **Spotted Deer**, and **Wild Boar**. Additionally, its avian biodiversity attracts birdwatchers with numerous bird species, making it a prominent conservation area.

Indian Navy Day celebrations in Puri

Context
- On **December 4, 2024**, the **Indian Navy** will celebrate **Navy Day** at the **Blue Flag Beach** of **Puri, Odisha.**

Details
- This year's theme, "**Operational Demonstration**" (or **Op Demo**), highlights the **Indian Navy's connection to Odisha's maritime legacy** and celebrates the Navy's success in the **1971 Indo-Pak war**.
- This event is a momentous occasion for **Odisha** and will serve as a reminder of India's enduring maritime power and rich naval heritage.

Dr. Harekrushna Mahatab's 125th Birth Anniversary

Context
- The **Odisha government** has declared a year of celebrations to honor the **125th birth anniversary** of **Dr. Harekrushna Mahatab**, a prominent **former Chief Minister** and **icon of Odisha**.

Harekrushna Mahatab: A Legacy of Freedom and Nationalism
- **Mahatab**, a **freedom fighter** and **prolific writer**, was born on **November 21, 1899**, in **Agarapada, Bhadrak district**.
- As a **leader of the Utkal Sammilani**, Mahatab was instrumental in campaigning for a **separate Odisha province**.
- A strong proponent of **Mahatma Gandhi's Non-Cooperation Movement**, he was repeatedly **imprisoned by the British** for his role in the **freedom struggle**.

Political Contributions:
- Mahatab served as the **Prime Minister of Odisha** (1946–1950) and **Chief Minister** (1956–1961), playing a key role in integrating 26 Odia-speaking princely states and shifting the capital from **Cuttack to Bhubaneswar**.
- His leadership also spearheaded **major infrastructure projects** like the **Hirakud Dam** on the **Mahanadi River**.

Rebellion and Later Years:
- In **1966**, Mahatab parted ways with the **Indian National Congress** due to policy differences with **Indira Gandhi** and founded the **Orissa Jana Congress**.
- He was **imprisoned in 1976** for opposing **Indira Gandhi's Emergency** and later retired from active politics in 1977. Mahatab passed away on **January 2, 1987**.

Odisha Public Examinations (Prevention of Unfair Means) Bill, 2024

Context
- Odisha has approved the **Odisha Public Examinations (Prevention of Unfair Means) Bill, 2024**. This draft bill aims to impose stricter punishments and make public examinations more transparent and credible.

Background
- The proposed bill comes after the **Orissa Conduct of Examinations Act of 1988**, which had much milder punishments (three months imprisonment and ₹500 fine).

- The new bill is designed to enhance deterrence against **unfair means** in public exams and ensure fair selection processes for **public service** and **education**.

Key Provisions of the Bill
Punishments for Offenses:

- **Imprisonment**: Ranging from **3 to 5 years** for various examination-related malpractices.
- **Fine**: Up to ₹10 lakh for offenders.
- Offenses such as **impersonation**, **cheating**, **exam disruption**, and **leakage of exam information** will be treated as **non-bailable** and **non-compoundable**.

Coverage:

- The bill applies to examinations conducted by key bodies like:
  - **Odisha Public Service Commission (OPSC)**
  - **Odisha Staff Selection Commission (OSSC)**
  - **Odisha Subordinate Staff Selection Commission (OSSSC)**
  - **Odisha Police Selection Board**
  - **Odisha Joint Entrance Examination (OJEE)** and other state-level recruitment agencies.

Service Provider Accountability:

- Service providers found guilty of aiding malpractices will face fines up to **₹1 crore**.
- Additional punishments for service providers who fail to pay fines, including **imprisonment**.

Significance of the Bill

- The bill's provisions are in line with the state's commitment to making public examinations more **transparent** and **accountable**. It also addresses gaps left by previous laws, ensuring a stronger framework for combating **exam malpractices** in the state.

Two women died after consuming Mango Kernel Gruel in Odisha
Context

- In **Kandhamal**, **Odisha**, two women have died after allegedly consuming gruel made from **mango kernel**.
- The incident has raised concerns about the safety of using mango seed kernels in food preparations.

What is Mango Seed Kernel?

- Mango seed kernel is a by product of the **mango fruit canning industry**. It is extracted from the seed inside the mango fruit after the juice is processed or after the fruit is consumed. The kernels, which constitute about **15%** of the fruit's weight, are generally used in **animal feed**.

Mango Seed Kernel: Nutritional and Deleterious Factors

- **Nutritional Value**: Mango seed kernels are a **poor source of protein** (6% CP), with a **Total Digestible Nutrient (TDN) content of 55%**.
- **Deleterious Factors**: These kernels contain **5-6% tannins**, which can be harmful if consumed in excess. In animals, high tannin levels may affect growth and overall health, leading to concerns about its safety for human consumption.

Use in Animal Feed

- Mango seed kernels are commonly used in **animal feed** and can be safely incorporated into **concentrate mixtures** for **milch cattle** (up to 10%) and **growing calves** (up to 40%).
- **Ruminants**, such as cows and buffaloes, can tolerate **up to 50% mango kernel** in their feed without adverse effects.

Impact on Human Consumption

- While mango seed kernels are often used in **livestock feed**, their use in **human food** is not widely recognized as safe due to their **high tannin content** and potential for toxicity.
- The recent incident highlights the risks of **improper or unsafe use** of such kernels in food.

Odisha Government reshuffles Bureaucracy: Key Changes in Portfolios
Context

- The **Odisha Government** has implemented a major reshuffle in the **bureaucracy**, with changes in the portfolios of **11 senior officers**.

Details

Name	Previous Position	New Role	Additional Charge
Chitra Arumugam	Special Secretary, Planning and Convergence	Principal Secretary, Labour and ESI	Principal Secretary, Science and Technology
Yamini Sarangi	Project Director, Odisha Adarsha Vidyalaya Sangathan	Commissioner, Commercial Taxes and GST	Special Secretary, Finance
Smita Rout	Additional Secretary, Finance	Project Director, Odisha Adarsha Vidyalaya Sangathan (replacing Yamini Sarangi)	

Sudhansu Mohan Samal	Additional Secretary, Water Resources	Managing Director (MD), Odisha Mining Corporation (OMC)	
Indramani Tripathy		Labour Commissioner (replacing Vijay Amruta Kulange)	Additional Secretary, ST&SC Development, Minorities, and Backward Classes Welfare Department
Trilochan Majhi	Additional Secretary, Revenue and Disaster Management Department	Additional Secretary, Home Department	
Satyabrata Rout	Additional Secretary, Finance Department	Additional Secretary, Works Department	

Business Opportunities & FDI in Odisha

- **Largest producer of iron ore, bauxite, aluminum, steel** and **stainless steel** in the country.
- **Odisha** is considered as a hub for **mineral-based industries** due to its large **mineral deposits**.
- **Odisha** is recognized as an "Aspirer" among the coastal states by **DPIIT** in **Logistics Ease** (**LEADS 2023**).
- With a coastline of **480 km**, **Odisha** is located on the east coast of **India** along the **Bay of Bengal**.
- The state is served by **2 ports – Paradip** and **Dhamra**, **10,000 km** of highway road network, and **2,500 km** of railway network.
- **Power surplus state** with over **17,600 MW** of power production. **Odisha's NTPC Talcher Kaniha** (**3000 MW**) is the best-performing **thermal power plant** with **94.2% Plant Load Factor**.
- **NTPC Talcher TPP**, St - III (**2x660 MW**) has about **1,320 MW** of capacity under construction.
- A first-of-its-kind **Single Window Portal** called **Government of Odisha – Single Window for Investor Facilitation and Tracking (GO SWIFT)** has been introduced covering the complete life cycle of **industrial projects** for **time-bound** and **hassle-free investment** in the State.
- **Odisha Skill Development Authority** is a dedicated authority to facilitate **skill development** in accordance with the needs of the **industries**.
- The state has the highest percentage of **Chromite**, **Iolite**, **Bauxite**, and **Iron Ore** mineral deposits in **India**.

Odisha government amendments: Odisha Universities Act, 1989 & Industrial Policy Resolution (IPR), 2015

Context
- The Odisha Cabinet approved amendments to the Odisha Universities Act, 1989, and the Industrial Policy Resolution (IPR), 2015, to enhance university autonomy and streamline industrial incentives.

Amendment to Odisha Universities Act, 1989:
- **Objective**: To address the challenges faced by universities and improve their **academic excellence**, **governance**, and **administrative efficiency**.

Key Changes:
- **Recruitment Process**: Streamlining recruitment to eliminate delays caused by **court cases**, ensuring timely appointment of teachers.
- **University Autonomy**: Granting universities more **autonomy** in decision-making while maintaining **accountability**.
- **Increased Academic Involvement**: Greater role for **academic professionals** in decision-making processes.
- **Reintroduction of Senate**: Formation of key committees such as the **Senate**, **Building and Works Committee**, and **Finance Committee**.
- **NEP Integration**: Incorporating aspects of the **National Education Policy (NEP)**, focusing on **multi-disciplinary education**, **skill development**, and **distance learning** to enhance **employability**.

Amendment to Industrial Policy Resolution (IPR), 2015:
- **Objective**: To enable **eligible investors** to claim **incentives** efficiently and align IPR with **sectoral policies** for smooth incentive administration.

Key Changes:
- **Extended Timeline for Claim Submission**: Investors now have **two years** (instead of one) to submit their claims, a change prompted by **COVID-19** disruptions and **lack of awareness** about incentive eligibility.
- **Delay Condonation**: Delays beyond the two-year timeline can be condoned at the **Chief Secretary's** level, based on valid reasons.
- **One-Time Relaxation**: Investors who had commenced **commercial production** but missed the deadline, but submitted applications by **June 30, 2023**, will still be considered for incentives.
- **Post-June 30, 2023 Submissions**: Will not be accepted, unless there are valid reasons for delay,

which may be considered by the **Chief Secretary**.

Odisha Food Processing Policy (OFPP) Amendment:

- The amendment ensures consistency between the **IPR 2015** and **OFPP 2016** policies, making activities like **oil expelling**, **solvent extraction**, **refining of oil**, and **packaged drinking water** eligible for incentives under both policies.
- The amendment in **IPR 2015** will be **retrospective** from the date the change was made in **OFPP 2016** (August 18, 2020).

Odisha government increases Honorarium for living Padma Awardees

Context

- The Odisha government has announced an increase in the **monthly honorarium** for the state's **Padma award recipients** who are still alive, raising it from **₹25,000 to ₹30,000**.
- The decision was made to support the 55 living Padma awardees from Odisha, with a total of **₹2 crore** allocated for their remuneration.

Key Details:

- **Honorarium Increase**: The monthly honorarium for the 55 Padma awardees will be **raised to ₹30,000** from the previous **₹25,000**.
- **Financial Commitment**: The Odisha government will spend **₹2 crore** annually to support these awardees.
- **Historical Context**: The initiative to provide a monthly honorarium to Padma awardees was introduced in **June 2019** after **Padma Shri awardee Daitari Naik**, a 75-year-old tribal farmer from **Keonjhar district**, expressed concerns over financial hardships after receiving the Padma Shri award. Naik mentioned that people were hesitant to engage him as a daily laborer due to his award, leading him to consider selling his medal.

Significance:

- **Padma Awardees in Odisha**: Odisha has **over 150 Padma awardees**, with **55 still alive**. Many of these awardees face financial difficulties due to meagre incomes, despite their significant contributions to society.
- **First Padma Awardee**: The first Padma awardee from Odisha was **Mahadeva Iyer Ganapati**, a civil engineer who contributed to key projects like the **Rourkela Steel Plant**, **Churchgate Railway Station**, and **Chittaranjan Locomotive Works**. He was honoured with the **Padma Bhushan** in **1954**.

This increase in honorarium reflects the Odisha government's recognition of the valuable contributions made by these individuals and aims to provide them with better financial support.

Dongria Kondh Tribe

Context:

- The Dongria Kondh tribe of Odisha is facing food scarcity and has resorted to consuming gruel made from tamarind seeds and Salap tree stems due to a combination of climate change, deforestation, and government neglect.

About:

- **Location:** Niyamgiri Hills, Odisha.

Lifestyle:

- **Farming:** Shifting cultivation (millets, maize, vegetables).
- **Forest Products:** Gathering fruits, nuts, roots, and medicinal herbs.
- **Crafts:** Women weave textiles; men make baskets and tools.
- **Language:** Kui (Dravidian).
- **Beliefs:** Animistic, worshipping Niyam Raja, the god of the hills.

Odisha to become major Renewable Energy Hub

Context

- Union Minister for New and Renewable Energy, Pralhad Joshi, highlighted **Odisha's potential to become a leading renewable energy hub.**

Key Points:

- The state **has a solar energy potential of 140 GW and opportunities in green hydrogen, aided by its long** coastline and strong port infrastructure. Odisha will also explore the use of floating solar panels.

Solar Projects:

- 6,000 MW solar module manufacturing facility in Dhenkanal, ₹9,000 crore investment.
- 1,000 MW solar module and cell manufacturing in Khordha, ₹730 crore investment.

Odisha State Film Awards 2020-2022

Context

- At a special ceremony, Odisha Governor Raghubar Das presented the State Film Awards for 2020, 2021, and 2022, recognizing outstanding contributions to the film industry.

Details

- **Lifetime Achievement Awards**: Ananta Mohapatra (2020), Srinivas Mohapatra (2021), Jayiram Samal (2022)
- **Best Film Awards**: 'Saheed Raghu Sardar' (2020), 'Pratiksha' & 'Dalchini' (2021), 'Daman' (2022)
- **Best Director Awards**: Rakesh Samal (2020), Suresh Patnaik (2021), Sudhansu Mohan Sahu (2022)
- **Best Actor Male**: Debashis Patra (2021), Ankit Kumar &Dipanwit Das Mohapatra (2021), Babushan Mohanty (2022)

- **Best Actor Female**: Kavya Keeran Shukla, Suryamayee Mohapatra, Lopamudra Mishra (2020-2022)
- **Best Tribal Film**: 'Dewa' (2022)
  A five-member jury, led by director Sabyasachi Mohapatra, selected the winners.

Similipal Tiger Reserve
Context
- Zeenat, a tigress relocated from Maharashtra's Tadoba-Andhari Tiger Reserve (TATR), was successfully released into the core area of Odisha's Similipal Tiger Reserve (STR).

Similipal Tiger Reserve:
- **Name Origin**: Derived from the "Simul" (silk cotton) tree.
  o **Tiger Reserve:** Established in 1956.
  o **Project Tiger:** Included in 1973.
  o **Biosphere Reserve**: Designated in June 1994.
  o **UNESCO Biosphere Network**: Joined in 2009.
- **Location**: Situated in Mayurbhanj district, Odisha, at the easternmost point of the Eastern Ghats.
- **Vegetation**: Home to 96 species of orchids and 1,076 species of blooming plants.Features meadows, sal woods, dry deciduous hill forests, tropical moist deciduous forests, and tropical semi-evergreen forests.
- **Wildlife**: 304 bird species, 20 amphibians, 62 reptiles.
- **Notable wildlife**: Tigers, elephants, and a variety of other animals.
- **Tribes**: The ErengaKharias and Mankidias tribes live in the reserve, practicing traditional agriculture and collecting wood and seeds.

RERA Projects in Odisha
Context
- The Odisha government has initiated steps to streamline the registration process for common areas in apartments and establish modalities for pre-RERA project registration.
- This is in line with the Real Estate (Regulation and Development) Act, 2016, and the Odisha Apartment (Ownership and Management) Act, 2023, aiming to protect homebuyers' interests.

About RERA Projects:
- **Mandatory Registration:** All real estate projects must be registered with RERA before sales.
- **Transparency:** Developers must disclose key project details such as timelines, pricing, and approvals.
- **Escrow Account:** Funds are secured in an escrow account to ensure timely project completion.
- **Consumer Redressal:** Homebuyers can file complaints against developers for delays or non-compliance.

- **Penalties:** Developers face penalties for failing to comply with RERA regulations.

Odisha's collaboration for Multilingual Governance
Context
- The Odisha government has partnered with the **Digital India Bhashini Division (DIBD)** to promote governance in regional languages using AI-powered translation tools.

Key Points:
- DIBD's translation API will be integrated into state platforms **for real-time, accurate multilingual service delivery.AI tools will capture regional dialects to improve translations.**
- The state **will assess language needs, prioritize translations, and set up a state language mission for monitoring.**

Digital India BHASHINI
- BHASHINI is an AI-driven platform aiming to empower citizens by connecting them to digital government services in their native languages, promoting digital inclusion & increasing online content in regional languages.

Key Features:
- **Bhasha Daan:** A crowd-sourcing initiative where citizens contribute language data to train AI models for various applications.
- **Collaboration:** Unites government, industry, academia, and startups to create an open language resource repository.
- **Digital Content:** Boosts Indian language content on the internet, especially in governance, science, and technology.

National Education Policy (NEP) 2020
Context
- Odisha gave his approval for implementation of the National Education Policy 2020 (NEP-2020) in the higher education sector in the State from the current academic year (2024-25).

National Education Policy (NEP) 2020
- **Universal Access:** Ensures access to quality education from pre-primary to Grade 12, with a focus on early childhood care (3-6 years).
- **New Pedagogical Structure:** Introduces a 5+3+3+4 structure for schooling, covering foundational, preparatory, middle, and secondary stages.
- **Curriculum Integration:** Blurs the lines between arts and sciences, vocational and academic streams.
- **Assessment Reform:** Establishes PARAKH for holistic evaluation and a new approach to board exams.
- **Inclusion:** Prioritizes disadvantaged groups, gender inclusion, and resource availability

through school complexes.

- **Vocational Education & GER Growth:** Promotes vocational education and aims to increase the Gross Enrolment Ratio (GER) in higher education to 50%.
- **Multidisciplinary Education:** Supports multiple entry/exit options and academic credit systems.
- **Teacher Training:** Introduces a 4-year integrated Bachelor of Education program and merit-based teacher recruitment.
- **Higher Education Reforms:** Restructures institutions into research universities, teaching universities, and degree-granting colleges.
- **Public Investment:** Aims for 6% GDP investment in education and ensures transparency in higher education.
- **Objectives:** Focuses on curriculum reforms, mother-tongue instruction, assessment changes, teacher management, and digital education.

Mahanadi
Context
- Mahanadi is gradually becoming sand-cast and the depth of its water at the river mouth is getting shallower.

Mahanadi River
- **Origin**: The Mahanadi originates in the highlands of Chhattisgarh and flows a total distance of **860 km** before emptying into the Bay of Bengal.
- **States Traversed**: The river passes through **Maharashtra**, **Chhattisgarh**, and **Jharkhand**, draining a significant portion of the Indian peninsula.
- **Hirakud Dam**: The Hirakud Dam, located near Sambalpur, has two landmarks on either side: the **Gandhi Minar** and the **Ashok Minar**.
- **Physiographic Details**: It forms a vast delta with the **Brahmani River**, which includes the city of **Cuttack**.
- **Delta Region**: The delta is home to **mangroves** and supports **rice cultivation**, yielding significant agricultural output.
- **Basin Area**: The Mahanadi basin spans **141,589 sq. km**, which is approximately **4.3**% of India's total geographical area.
- **Surrounding Landforms**: **North**: Central India Hills**; South and East**: Eastern Ghats; **West**: Maikala Range.
- **States Covered**: The basin spans **Madhya Pradesh**, **Orissa**, **Bihar**, and **Maharashtra**.
- **Physiographic Regions: Northern Plateau**: Hilly terrain. **Eastern Ghats**: Hilly and forested region. **Coastal Plain**: Fertile delta area. **Central Table Land**: Interior region, traversed by the Mahanadi and its tributaries.
- **Soil Types**: Predominantly **red and yellow soils**, **mixed red and black soils**, **laterite soils**, and **deltaic soils**.
- **Major Projects:** Hirakud Dam, Ravishankar Sagar, Dudhawa Reservoir, Sondur Reservoir, Hasdeo Bango, Tandula Reservoir.
- **Tributaries:** Seonath, Jonk, Hasdeo, Mand, Ib, Ong, Tel

Odisha engineer Nil Pradhan wins Rohini Nayyar Prize
Context
- **Nil Pradhan**, a 28-year-old engineer from Odisha, has been awarded the prestigious **Rohini Nayyar Prize for Outstanding Contribution to Rural Development** for his impactful work in promoting **STEM education** in rural India.

Details
- **Odisha Engineer Nil Pradhan Wins Rohini Nayyar Prize for Transforming Rural Education**
- **Nil Pradhan**, an engineer from Odisha, has been awarded the prestigious **Rohini Nayyar Prize for Outstanding Contribution to Rural Development** for his impactful work in promoting **STEM education** in rural India.

Innovations in Rural STEM Education
- Pradhan, co-founder of the **Young Tinker Foundation**, launched the innovative **'Tinker-on-Wheels'** initiative, a mobile learning lab that brings hands-on experiences in **robotics, 3D printing**, and other STEM fields to underserved schools in Odisha, Telangana, and Tamil Nadu.
- **Impact**: Over **2.5 lakh students** have benefited from this program since its inception.
- **Approach**: Mobile labs set up in school playgrounds overcome the infrastructural challenges of rural schools.

About the Rohini Nayyar Prize
- Instituted by the **Nayyar Foundation for Social and Economic Purpose**, the award honors individuals under 40 for exemplary contributions to rural development.
- **Prize Components**: ₹10 lakh cash award, a citation, and a trophy.
- **Legacy**: The prize commemorates economist **Rohini Nayyar**, who significantly advanced rural development through her academic and advisory roles.

Food Corporation of India (FCI)
Context
- The **Food Corporation of India (FCI)** has launched a **joint physical verification** (PV) of paddy stocks in western Odisha's rice mills following reports of massive corruption in the recycling of **custom milled rice (CMR)** supplied to the **Public Distribution System (PDS)**.

Food Corporation of India (FCI)

- The **Food Corporation of India (FCI)**, established in **1965** under the **Food Corporation Act, 1964**, operates under the **Ministry of Consumer Affairs, Food and Public Distribution**.
- It is vital for India's **food security**, managing one of the country's largest supply chains.

Key Functions:

- **Procurement**: Procures wheat and rice at **Minimum Support Prices (MSP)** to ensure fair returns to farmers.
- **Storage**: Maintains operational and buffer stocks in warehouses and silos for PDS and emergencies.
- **Distribution**: Supplies food grains to states at **Central Issue Prices (CIP)** for the **PDS** and welfare schemes like Mid-Day Meals.
- **Exports**: Manages surplus grain exports as per government directives.

Odisha as India's Millet Hub

Context

- Odisha CM inaugurated the **International Symposium on Shree Anna and Forgotten Foods.**
- He announced plans to make Odisha the **Millet Hub of India**, with a focus on increasing production and consumption of millets.

About Millets (Shree Anna):

- Term "Shree Anna" coined by PM Modi; known as **"Mother of All Grains"**.
- Nutrient-rich, gluten-free, and climate-resilient crops.
- Key varieties: Sorghum (Jowar), Pearl Millet (Bajra), Ragi, Foxtail Millet, Kodo Millet, etc.

Key Facts:

- **2018**: National Year for Millets.
- **2023**: International Year for Millets.
- **Rajasthan**: Top millet producer in India.

Ideal Growing Conditions:

- **Soil:** Sandy, loamy, with good drainage.
- **Climate:** Warm, arid to subtropical.
- **Rainfall:** 20–120 cm (varies by type).

Top Millet-Producing States:

- **Rajasthan, Karnataka, Andhra Pradesh, Maharashtra, Tamil Nadu**, and others.

Nutritional Benefits:

- Rich in **iron, calcium, zinc, vitamins**, and antioxidants.
- Aids in managing **diabetes, anaemia**, and boosts overall health.

Odisha's Efforts:

- Cultivation in **177 blocks**, spearheaded by **Koraput district**.
- Recognition of women farmers as key contributors to millet production.

Janjatiya Gaurav Divas

Context

- Recently, the **150th birth anniversary of Bhagwan Birsa Munda was observed on Janjatiya Gaurav Divas.**

Janjatiya Gaurav Divas

- **Janjatiya Gaurav Divas** is celebrated annually on **November 15th**, marking the birth anniversary of **Bhagwan Birsa Munda**, a revered tribal leader and freedom fighter.
- Since its inception in **2021**, Janjatiya Gaurav Divas has brought attention to the overlooked contributions of tribal communities to India's freedom movement.
- Leaders like the **Santhals, Bhils, Khasis, and Mizos** spearheaded revolutionary uprisings.
- Birsa Munda's **Ulgulan (Revolution)** stands as a defining example of tribal defiance against British exploitation.

Pratyasa Ray wins 32nd Ekalabya Puraskar

Context

- Odisha's ace swimmer, Pratyasa Ray, was awarded the **32nd EkalabyaPuraskar for 2024.**
- Pratyasa received a trophy, citation, and **a cash prize of Rs 7 lakh** for her exceptional achievements in swimming.

About Pratyasa Award

Institution and Management:

- Instituted **by the Indian Metals Public Charitable Trust (IMPaCT).**
- Managed **by Indian Metals and Ferro Alloys LTD**, one of India's leading Ferro Alloys producers.

Inception:

- **Established in 1993.**Recognized as Odisha's premier sports award.

Purpose and Impact:

- Honors emerging sports talent from Odisha.
- Aims to inspire young athletes to pursue excellence.
- Encourages athletes to excel on both national and international platforms.

Backyard Poultry Farming

Context

- The Odisha government, in collaboration with a private organization, is launching an initiative to expand backyard poultry farming.

Details

- The initiative emphasizes the **use of indigenous poultry breeds and scientific farming methods to enhance productivity and sustainability.**
- It is **aimed at empowering rural women and making them self-reliant.**
- The initiative is **already being implemented by 50**

women in the **Mayurbhanj and Keonjhar districts, showcasing its potential for success.**

- Odisha, **with 30 districts, has significant potential for further expansion of the model, which promotes sustainable farming practices.**

Tara Tarini Temple
Context
- The Tara Tarini Temple went through a purification bath ritual, Mahasnana, on November 8.

Location:
- The temple is situated in the **Kumari Hills, Ganjam district, Odisha, around 28 km from Brahmapur city, on the banks of the Rushikulya River.**

Adi Shakti and Spiritual Importance:
- Tara Tarini Temple is dedicated to **Adi Shakti**, the primordial cosmic power, representing the divine feminine energy.
- Tara and Tarini are manifestations of Shakti, revered as powerful deities in Hindu mythology.
- The temple is one of the **Shakti Peethas**.

Temple Deities:
- **Main Idols:** Two stone female faces of Tara and Tarini, adorned with gold and silver ornaments.
- **Chalanti Pratima:** Two brass heads between the stone faces, symbolizing the deities' ongoing presence.
- **Buddha Idol:** A small Buddha murti, reflecting the temple's cultural inclusivity.

Odisha's achievements in the 5th National Water Awards 2023
Best State Award
- Odisha won the **first prize** in the **Best State category** of the 5th National Water Awards 2023.
- Uttar Pradesh secured the **second prize**, while **Gujarat** and **Puducherry** jointly won the **third position**.

Other Awards for Odisha
- **Best District (East Zone)**: **Balangir** district was declared the winner in the East Zone.
- **Best Urban Local Body**: **Puri** secured the **second position**.
- **Best School/College**: **Khairbani Ashram School**, located in **Baisinga, Mayurbhanj district**, achieved the **third position**.

National Water Awards (NWAs)
- **Launched**: 2018 by the Department of Water Resources, River Development, and Ganga Rejuvenation (DoWR, RD & GR).
- **Objective**: Recognize and encourage exemplary work in water conservation and management to achieve the vision of **'Jal Samridh Bharat'**.
- **Purpose**: Sensitize the public about water conservation; promote adoption of best water usage practices; encourage a holistic approach to water resource management - surface &groundwater.

Award Categories and Eligibility

Category	Eligible Entities	Category	Eligible Entities
Best State	State Governments/UTs	**Best Institution**	Institutions/RWAs/Religious Organizations
Best District	District Administration (DM/DC)	**Best Industry**	Small/Medium/Large Industries
Best Village Panchayat	Village Panchayats	**Best Civil Society**	NGOs and Civil Societies
Best Urban Local Body	Urban Local Bodies	**Best Water User Association**	Water User Associations
Best School / College	Schools/Colleges		

Award Components
- **Trophy & Citation**: For categories such as Best State and Best District.
- **Cash Prizes:** For other categories, ranging from ₹2 lakhs (1st Prize) to ₹1 lakh (3rd Prize).

Key Railway and Development Projects in Mayurbhanj
Context
- President **Droupadi Murmu** laid the foundation for several significant projects aiming to improve regional connectivity and ease communication challenges.

Railway Projects
- **Bangiriposi-Gorumahisani New Line**
- **Budhamara-Chakulia New Line**
  - Coverage: Mayurbhanj district in Odisha and East Singhbhum in Jharkhand.
- **Badampahar-Keonjhar New Line**

- o Coverage: Mayurbhanj and Keonjhar districts.

AI to eliminate 'Katni-Chhatni' woes of Odisha farmers

Context

- The Odisha government is set to deploy **AI-based automated foodgrain analyzers** at paddy procurement centres to address the longstanding issue of **'Katni-Chhatni'.**

What is Katni-Chhatni'?

- **'Katni-Chhatni'**, a practice where farmers face deductions in the support price for their produce based on alleged quality deficiencies.

Key Features of the Initiative:

- **AI Assessment**: Enables accurate evaluation of paddy quality, eliminating manual errors and biases.
- **Enhanced Fairness**: Ensures **Fair Average Quality**(FAQ) standards are upheld, preventing undue price deductions due to husk, moisture, or discoloured grains.

Benefits for Farmers:

- **Transparency**: AI removes scope for manipulation by rice millers and officials.
- **Efficiency**: Faster and precise sampling process boosts procurement speed.
- **Better Price Realization**: Non-FAQ produce can be standardized, ensuring farmers receive appropriate compensation.

Conclusion

- The state aims to procure **71 lakh tonnes of paddy** in the **2024-25 kharif marketing season**, with plans to scale AI integration across all procurement centres in subsequent phases.
- This move is expected to revolutionize grain procurement, enhancing trust and ensuring equitable treatment for farmers in Odisha.

Odia Lipi: A Revolutionary Typing Tool for Odia Language

Context

- The **Odia Virtual Academy**, under the Culture Department of Odisha, has introduced **Odia Lipi**, a state-of-the-art **Unicode-based typing tool** designed to make Odia typing seamless, tech-friendly, and error-free.

What is Odia Lipi?

- **Odia Lipi**, is a state-of-the-art **Unicode-based typing tool** designed to make Odia typing seamless, tech-friendly, and error-free.

Key Features:

- **Unicode Fonts**: Supports universal compatibility across Windows, Mac, iOS, Linux and Android, unlike outdated 8-bit fonts.
- **Comprehensive Character Map**: Includes the entire Odia alphabet from *Barnabodha*, along with numerals, *matras*, *phalas*, and conjuncts.
- **Four Keyboard Layouts**: Offers phonetic, typewriter, in-script, and easy options for user convenience.
- **Predictive Text**: Suggests words while typing to enhance speed and accuracy.

Advantages:

- Eliminates errors caused by incorrect characters and formatting.
- Promotes ease of information exchange in Odia across platforms.
- Facilitates effortless typing with English-aligned phonetic keyboards.

Further Details

- The tool can be downloaded for free from the **Odia Virtual Academy website**. Additionally, the academy has launched a similar free keyboard for the **Santali language**, supporting linguistic inclusivity.
- This initiative is a significant step towards enhancing the usability of Odia as a **tech-friendly classical language** in the digital era.

Groundwater Extraction in Odisha

Context

- **Odisha's groundwater extraction has surged by 18% over the last decade**, rising to 48.23% in 2024 from 30% in 2013, according to the **draft Ground Water Resource Assessment-2024**.

Key Findings:

Groundwater Usage:

- **Safe Stage**: 299 out of 314 blocks remain under safe extraction levels (<70%).
- **Critical Zones**: 9 blocks fall under the semi-critical category (>70% extraction), while 6 blocks have fully saline groundwater.

Improved Groundwater Conditions:

- **Baliapal:** Extraction reduced from 88.52% to 83.19%.
- **Korei:** Extraction dropped from 84.02% to 76.52%.
- **Jharsuguda:** Levels improved from 72.56% to 70.85%.

Groundwater Recharge:

- Despite reduced rainfall, total recharge increased to **17.46 BCM** in 2023-24, up from 17.35 BCM in 2022-23, indicating recharge from alternative sources.

Usage Statistics:

- **Irrigation**: 6.28 BCM. **Domestic Use**: 1.26 BCM. **Industrial Use**: 0.19 BCM.
- **Net Availability**: 8.26 BCM remains available for future use.

Management Measures:

- The **Central Ground Water Board (CGWB)**, through the **NAQUIM 2.0 study**, recommended

targeted management in:

- o Water-stressed areas of Bolagarh (Khurda) and Nayagarh blocks.
- o Urban and peri-urban regions of Sambalpur.
- o Industrial clusters in Jharsuguda and Sambalpur.
- o Balasore Sadar and Remuna blocks in Balasore district.

- This rising trend in groundwater extraction underscores the need for **sustainable water management strategies** to mitigate future water stress.

Udayagiri and Khandagiri Caves

Context

- The Orissa High Court has directed the Archaeological Survey of India (ASI) to issue fresh notices to the unauthorized occupants in and around cave numbers 8, 9, and 11 at Khandagiri.

Udayagiri and Khandagiri Caves: Odisha's Ancient Heritage

- The **Udayagiri and Khandagiri Caves**, located 3 km south of Bhubaneswar, Odisha, are a blend of natural and man-made architectural wonders dating back to the **1st century BCE**.
- Historically significant and of great archaeological importance, these caves served as residential retreats for Jain monks during the reign of **King Kharavela**.

Key Features:

- **Cave Count**:
  - o **Udayagiri**: 18 caves, including the renowned **Rani Gumpha**, **Hathi Gumpha**, and **Ganesha Gumpha**.
  - o **Khandagiri**: 15 caves, with the **Ananta Gumpha** known for its intricate carvings.
- **Architectural Highlights**:
  - o **Rani Gumpha**: A double-storied cave adorned with sculptures depicting royal victories, elephants, women, and musicians.
  - o **Hathi Gumpha Inscription**: Provides insights into King Kharavela's reign.

Historical and Cultural Relevance:

- The caves, referred to as **"leṇa"** in inscriptions, showcase Jain religious motifs and royal depictions.
- Recognized as a **"Must See Indian Heritage Site"** and listed under **Adarsh Smarak Monuments** by the **Archaeological Survey of India (ASI)**.

Odisha Supplementary Budget

Context

- **Chief Minister Mohan Majhi** presented a **supplementary budget** of **Rs 12,156 crore** in the Odisha Assembly, adding to the **Rs 2.65 lakh crore** annual budget announced in July.

- The supplementary budget aims to address public welfare needs while maintaining fiscal discipline.

Key Allocations:

- **Subhadra Yojana**: An additional **Rs 1,196 crore** has been allocated to this flagship **women's cash incentive scheme**, bringing the total outlay to **Rs 11,196 crore**. Under the scheme, **eligible women** receive **Rs 10,000 annually** in two instalments. The government plans to reach **1 crore women** this financial year to disburse the first instalment.
- **Pravasi Bharatiya Divas**: The government has earmarked **Rs 125 crore** for the event, which will be held in **Bhubaneswar** from **January 8-10**. This marks the first time Odisha will host this prominent gathering.
- **Gopabandhu Jana Arogya Yojana**: The state's healthcare programme received an additional **Rs 644 crore**, increasing its total allocation to **Rs 6,094 crore** (inclusive of the Rs 5,450 crore from the annual budget).

Fiscal Management:

- The supplementary budget is **FRBM (Fiscal Responsibility and Budget Management) compliant**, with projections to maintain a **revenue surplus** and contain the **fiscal deficit** at around **3% of the GSDP**.
- **Funding Sources**: The supplementary provision will be financed through **Rs 3,236 crore** in tied-up resources, with the remaining covered by **additional revenue collection** and **savings**.
- **Debt-to-GSDP Ratio**: As of October, Odisha's **debt-to-GSDP ratio** stands at **10.12%**, well within the mandated limit of **25%**.
- The budget includes **Rs 10,155 crore** for **programme expenditure** and **Rs 1,685 crore** for **administrative expenditure**, reflecting the state's focus on development and welfare initiatives.

Project URMI

Context

- Utkal Alumina International Ltd (UAIL) has launched **Project URMI** to improve healthcare in the Kashipur block of Rayagada and Thuamul Rampur of Kalahandi district in Odisha.
- Over the next three years, the initiative will benefit more than **5,000 people** across **40 villages** in these areas.

Details

Project Focus and Goals

- Project URMI primarily focuses on enhancing healthcare, hygiene, and life skills, with a special emphasis on:

Adolescent girls, **Mothers**, **Pregnant women.**

- Key targets of the project include:**100% institutional deliveries, Complete immunisation coverage, Universal menstrual hygiene practices**

- To achieve these goals, the project will also focus on **capacity-building** for:**ASHA workers, Anganwadi workers, Health staff**

Progress and Achievements

- Within the first 6 months, the project has made notable progress:**40 adolescent clubs** have been established**902 adolescent girls** and **582 infants** have been enrolled.**247 institutional deliveries** have been facilitated.

Sportslogon Player of the Year Award 2024

Context

- Javelin sensation of Odisha and Asian Games silver medallist **Kishore Kumar Jena** was honoured with the **Sportslogon Player of the Year** award at a ceremony held at **Kalinga Stadium**.

Details

- Kishore, aged 29, had earlier secured a top-five position at the **World Athletics Championship in Budapest**.

Other Awardees and Achievements

- **Suchitra Parida**, a para-athlete, was awarded the **Emerging Player of the Year** award. Suchitra set a new **national record** in the javelin throw in 2024.
- **Shuvendu Panda**, a football coach, received the **Coach of the Year** award for his exceptional guidance. Under his leadership, the **Indian national U-15, U-17, and U-19 football teams** brought home numerous accolades.
- Notably, the **U-19 team** won the **SAFF championship**, defeating Pakistan, while the **U-15 team** bagged a **bronze**.

Special Awards

- **Mannata Mishra**, a rising swimming star, was honoured with the **Kumudini Krida Prativa Purakar** and a **cash award of Rs 15,000** for her promising performances.
- **Dukhishyama Mallik**, a former volleyball player, received the **Player of the Bygone Era** award. The trophy and **Rs 25,000** cash award were presented to his daughter, **Asha Mallik**, on his behalf.

Odisha Current Affairs

NATIONAL

One Rank One Pension (OROP)

Context
- PM Modi celebrated OROP's 10th anniversary. (came into effect in 2014).

OROP Scheme
- Ensures equal pensions for same rank and service, regardless of retirement date.
- Pension based on 2013 retirees' average pension for the same rank.
- Arrears paid in half-yearly installments; family pensioners and gallantry awardees get one-time payment.
- Managed by **Defence Ministry**, revised every five years.

First Dry Port in Bihar

Context
- Bihar's first dry port was inaugurated at **Bihta**, near **Patna**.

Details:
- A **dry port** (or **inland container depot**) handles cargo storage and transportation, bridging sea/air ports with inland regions. It was crucial for Bihar, which produces **agro-based goods**, **garments** and **leather products** from diverse locations.

Digital India Common Service Centre (DICSC) Project

Context:
- The **Ministry of Electronics and Information Technology (MeitY)** has launched the **Digital India Common Service Centre (DICSC)** project.

Details
- Bridges the **digital divide** in rural India with e-governance, financial and commercial services.
- Provides services like **Aadhaar registration**, **banking**, and **tele-law** with high-speed broadband.
- Managed by **Common Services Centres e-Governance Services India Limited**.

Tulip Programme

Context
- The Union Minister for **Social Justice and Empowerment** launched the **TULIP (Traditional Artisans' Upliftment Livelihood Programme)**.

Details:
- **About:** TULIP provides an e-platform for artisans from **SCs**, **OBCs**, sanitation workers and persons with disabilities to market their products.

Aim:
- **Empower marginalized artisans** by offering global exposure and facilitating sales through **e-marketing**.

PM e-Drive Scheme

Context
- The **PM E-DRIVE** Scheme was approved with a **Rs. 10,900 crores** outlay till **March 2026**.

Details:
- **Aim:** Accelerate **electric vehicle (EV)** adoption, establish charging infrastructure and build a competitive EV manufacturing ecosystem.

Key Components:
- **Subsidies:** Incentives for **e-2Ws**, **e-3Ws**, **e-ambulances**, **e-trucks**, and emerging EVs.
- **Grants for Capital Assets:** Funding for **electric buses**, charging stations, and testing facility upgrades.
- **Administrative Costs:** Includes funding for **IEC** activities and project management.

Samarth Scheme

Context:
- Samarth Scheme is **extended for 2 years (Till 2026) with a Rs. 495 Cr. Budget.**

About:
- Demand-driven, placement-oriented program by the Ministry of Textiles.
- Focuses on job creation in the textile sector (entire value chain **excluding Spinning and Weaving).**
- Offers upskilling/reskilling in Apparel & Garmenting. Till now, 3.27 lakh trained, with 79.5% employed (88.3% women).

PM Vishwakarma Scheme

Context:
- The **PM Vishwakarma Scheme** has received over **25 million** applications.

Details
- **Launched in 2023**.
- **Nodal Ministry: Ministry of Micro, Small and Medium Enterprises**.
- **Type: Central Sector Scheme**, fully funded by the Government of India.

Objectives:
- Provides support to artisans across 18 trades, enabling them to sell products globally and strengthening the local economy by promoting traditional crafts.

Key Features:
- **Recognition:** PM Vishwakarma certificate and ID card.
- **Skill Upgradation:** Basic training (5–7 days) with **Rs. 500/day stipend**; Advanced training (15+ days)

with stipend.

- **Toolkit Incentive:** **E-voucher** of up to **Rs. 15,000** for tools.
- **Credit Support:** **Collateral-free loans** up to **Rs. 3 lakhs**, with 5% concessional interest and 8% government subvention.
- **Marketing Support:** **Quality certification**, **branding**, e-commerce on boarding, and advertising for better market linkages.

PM Yasasvi Scheme
Context:
- **PM YASASVI** empowers students to reach their potential and contribute to society.
About:
- **PM YASASVI** provides scholarships to students from **Other Backward Classes (OBC)**, **Economically Backward Classes (EBC)**, and **Denotified Tribes (DNT)** for quality education. It was launched by the **Ministry of Social Justice and Empowerment**. It integrates past scholarship schemes.
- **Selection:** Based on the **YASASVI Entrance Test (YET)** conducted by the **National Testing Agency (NTA)**.
- **Objectives:** Promotes **educational empowerment** and overcomes **financial barriers**. Supports growth from **school to higher education**. Empowers marginalized communities.

Section 6A of The Citizenship Act, 1955
Context
- The Supreme Court upheld **Section 6A** of the **Citizenship Act**.
About Section 6A:
- Based on the **Assam Accord** (1985), it grants citizenship to migrants in Assam based on their entry before **January 1, 1966**, with limited rights for those arriving between **January 1, 1966**, and **March 24, 1971**.
- Migrants after **March 25, 1971**, are considered foreigners.

Pradhan Mantri Mudra Yojana (PMMY)
Context
- The government has doubled the loan limit under **PMMY** to **Rs. 20 lakhs** to boost entrepreneurship.
About PMMY:
- Launched in **2015**, to provide loans up to **Rs. 10 lakh** for small/micro enterprises.
- Aims for **financial inclusion** and support to marginalized groups.
Categories
- *Shishu:* Loans up to **Rs. 50,000**.
- *Kishore:* Loans **Rs. 50,000 to Rs. 5 lakh**.
- *Tarun:* Loans **Rs. 5 lakh to Rs. 10 lakh**.

Latest Developments:
- **"Tarun Plus"** category introduced for loans **Rs. 10 lakh to Rs. 20 lakh** for successful **Tarun category** borrowers.
- **Credit Guarantee Fund** coverage for loans up to **Rs. 20 lakh**.

Ude Desh Ka Aam Nagrik
Context:
- The **UDAN** scheme launched by Ministry of Civil Aviation completes **8 years** of implementation.
About UDAN:
- Launched in **2016** under India's **National Civil Aviation Policy (NCAP)** to enhance regional connectivity.
- The scheme incentivizes airlines to connect remote and underserved regions by offering them support through Viability Gap Funding (VGF) and various concessions. It aims to improve infrastructure and connectivity. The **first UDAN flight** took off in **2017**, connecting **Shimla to New Delhi**.
Support Mechanisms:
- **Airport Operators** waive landing and parking charges.
- **Airports Authority of India (AAI)** exempts **Terminal Navigation Landing Charges (TNLC)**.
- **Excise duty** on Aviation Turbine Fuel (ATF) capped at **2%** for three years.
- States offer **reduced VAT** on ATF (1% or less) and provide essential services at reduced rates.

Lady Justice Statue
Context:
- The **Supreme Court of India** introduced a new **Lady Justice** statue in its judges' library.

Details
- Designed by **Vinod Goswami**.
- Depicts a **saree-clad woman** holding **scales** and the **Constitution of India**, replacing the sword.
- The **absence of a blindfold** symbolizes that **law sees everyone equally**, highlighting **impartiality** and **equality** in justice.

Inter-State Council
Context
- Recently, the **Inter-State Council** was reconstituted.
About the Council:
- **Estd**: It was formed in **1990** through a presidential order.
- **Formation**: It is based on the recommendations of **Sarkaria Commission**.
- **Objective**: To facilitate policy discussions and

promote collaboration between Union and states.
- **Composition**: **Chairperson**: Prime Minister. **Members**: Chief Ministers of all states, Chief Ministers of Union Territories with legislatures, Administrators of Union Territories without legislatures and relevant Union Cabinet Ministers.

India's Gold Reserves

Context
- India's **gold reserves** total **854.73 metric tonnes**, as per a recent **Reserve Bank of India** report.

Key Details
- **Domestic Holdings**: **510.46 metric tonnes** within India.
- **Overseas Holdings**: **324.01 metric tonnes** stored with **Bank of England** & **Bank for International Settlements**.
- **Gold's Share**: Accounts for **9.32%** of India's total foreign exchange reserves, up from **8.15%** in March 2024.
- **Global Rank**: India ranks **8th** in the world for gold reserves, behind the United States, Germany, and Italy.

SC orders Liquidation of Jet Airways under Article 142

Plenary Powers under Article 142:
Key Provisions:
- **Part 1:** Grants the Supreme Court authority to issue any judgment or order necessary for ensuring complete justice in any case.
- **Part 2:** Empowers the Court to:
  - Ensure attendance of individuals.
  - Ensure the discovery and production of documents.
  - Investigate and punish contempt of court.

Judicial Activism:
- Article 142 allows the Court to bypass statutory limitations to achieve complete justice, even if it means taking actions beyond legislative restrictions.
- The Court can override laws, Acts, or orders if deemed necessary for justice.

![INTERNATIONAL icon banner] **INTERNATIONAL**

Chabahar Port

Context
- India offered Chabahar Port in Iran to Afghan businesses during a recent meeting. Earlier, India signed a 10-year contract to develop and operate the port.

BEING DIRECT: INDIA TO CHABAHAR

About Chabahar Port:
Location:
- On **Iran's Makran Coast**, near the Gulf of Oman and the Strait of Hormuz.
- **Only Iranian port** with direct access to the Indian Ocean.
- Close to Pakistan's **Gwadar Port** (170 km west).
- Closest Indian port: **Kandla** (550 nautical miles);

Components:
- Two terminals – **Shahid Kalantari and Shahid Beheshti.**

Strategic Importance:
- Part of the **International North-South Transport Corridor (INSTC)** linking Indian Ocean to Northern Europe.
- Enhances connectivity and trade routes for India, **bypassing Pakistan.**
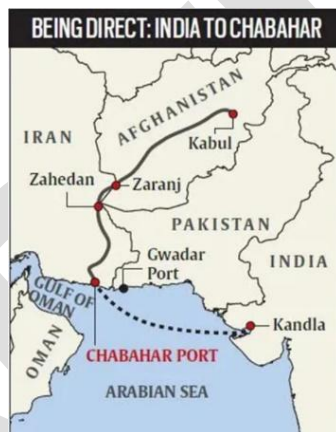
Adaptation Gap Report 2024

Context
- Recently the Adaptation Gap Report 2024 titled "*Come Hell and High Water*" was released.

About the Report
- Published annually by **United Nations Environment Programme (UNEP). Started in 2014.**
- Assesses global progress on **climate adaptation efforts**. It highlights the **adaptation gap**: the mismatch between actual efforts and the required needs to mitigate climate risks.

4B Movement

Context
- Post-Trump's victory, the **4B Movement** gains momentum in the US, protesting patriarchy and misogyny by rejecting sex and marriage with men.

About:
- **Origin:** South Korea post-**MeToo** and **Escape the Corset** movements.
- **4B (Four Nos):**No dating, sex, marriage, or children with men.
- **Expanded to 6B4T:** Includes rejecting misogynistic firms, fandom culture, and male-gaze beauty standards.

QS World University Rankings

Context

- Recently the QS World University Rankings was released.

Details

- QS World University Rankings is a portfolio of comparative college and university rankings compiled by **Quacquarelli Symonds**, a higher education analytics firm. It was **first published in 2014.**

Key Indicators:

- **Academic Reputation, Employer Reputation, Faculty-Student Ratio**, and **International Research Network**.

Indian Universities in 2024 ranking:

- **Top 50:** IIT Delhi (44th), IIT Bombay (48th). **Top 100:** IIT Madras (56), IIT Kharagpur (60), IISc (62), IIT Kanpur (67), University of Delhi (81).

World Intellectual Property Report 2024

Context

- India entered the **top 10** globally for **patents, trademarks**, and **industrial designs**, as per **WIPO 2024**.

> *The World Intellectual Property Report (WIPR) is a biennial analytical publication by the World Intellectual Property Organization, an agency of the United Nations. The report was first published in 2011.*

Key Highlights:

- **Patent Growth:** India saw a **15.7% rise** in patent applications in 2023, leading the top 20 IP economies.
- **Industrial Designs:** Applications increased by **36.4%**, emphasizing creative sectors.
- **Trademarks:** Ranked **4th globally**, with a **6.1% rise** in filings.

Asset Recovery Interagency Network-Asia Pacific (ARIN-AP)

Context

- India, via the **Directorate of Enforcement (ED),** has joined the **Steering Committee** of **ARIN-AP**.

ARIN-AP:

- Includes **28 jurisdictions** and **9 observers**, focused on **asset tracing, freezing** and confiscation across borders.
- It facilitates **intelligence-sharing** for cross-border crime asset recovery.

- Part of the **Global CARIN Network**, targeting **proceeds of crime** in the Asia-Pacific.
- **India is** set to assume **ARIN-AP presidency** in 2026. India will host the **Annual General Meeting**, enhancing its leadership in global asset recovery efforts.

International Solar Alliance

Context

- The **7th ISA Assembly** was held in **New Delhi**, with **India** elected as president and **France** as co-president for the 2024-2026 term.

Key Facts about ISA:

- **Launch:** Established in **2015** by **India** and **France** at **COP21** in Paris.

Objectives:

- *Achieve **1000 GW** solar capacity by **2030**.*
- *Mobilize **USD 1 trillion** for solar investments.*
- *Reduce solar energy costs through **financial mechanisms**. -Mainstream solar energy globally.*

Evolution:

- Initially for tropical countries, ISA expanded in **2020** to include all UN member states. **Over 110 countries** have signed the framework, with **90 full members**.
- **Headquarters:** Located at the **National Institute of Solar Energy (NISE)**, **Gurugram**, India.
- **Director General:** Leads the Secretariat for a **4-year** term.

Asian Buddhist Summit

Context

- The Ministry of Culture and International Buddhist Confederation (IBC) organized the First Asian Buddhist Summit (ABS).

Key Highlights:

- **Theme:** '**Role of Buddha Dhamma in Strengthening Asia**'.
- **Participants:** Sangha leaders, scholars and practitioners from various Buddhist traditions across Asia.
- **India's Act East Policy:** The summit aligns with India's policy for the collective and spiritual development of Asia, with Dhamma as the guiding light.

> *IBC is a Buddhist umbrella body with its base in New Delhi that serves as a common platform for Buddhists worldwide. IBC was started in 2010.*

Fact Finder

Description	UNDP	ILO	WORLD BANK	UNFPA	FAO
Formation	22nd November 1966	October 1919	1944	1967	1945
HeadQuarters	New York	Geneva, Switzerland	Washington, DC	New York	Rome, Italy
Parent Organisation	ECOSOC(United Nations Economic and Social Council)	United Nations Agency	United Nations	United Nations and ECOSOC - for policy guidance	United Nations Economic and Social Council
Operates in	170 countries	187 member states	189 countries	156 countries	195 members
Facts	UNDP is the third highest ranking official of the United Nations	played a significant role in promoting labour and human rights.	India is currently the largest client of World bank	UNFPA was later changed to United Nations Population Fund in 1987	Aims to achieve ' zero hunger' by 2030

State Of Food and Agriculture 2024 Report

Context
- The **Food and Agriculture Organisation** of the United Nations released the **State of Food and Agriculture 2024** report.

Key Findings:
- **True Cost Accounting**: Highlights hidden costs in agrifood system- environmental, health and social impacts.
- **Global Hidden Costs**: It is estimated at **$12 trillion annually**. Unhealthy diets contribute to **70%** of these costs.
- **India's Position**: India's hidden costs are the **third largest** globally at **$1.8 trillion**.

About the State of Food and Agriculture Report:
- An annual publication by the **Food and Agriculture Organisation** focusing on global food and agriculture systems.
- **2024** edition calls for more **inclusive, resilient, and sustainable** agrifood systems.

Comprehensive Nuclear-Test-Ban Treaty Organization

Context
- Iran's earthquakes (October 5, 2024) sparked nuclear test rumours; CTBTO confirmed natural causes.

About CTBTO:
- Enforces the **Comprehensive Nuclear Test Ban Treaty (CTBT)** to ban nuclear test explosions.
- **HQ:** Vienna, Austria. **CTBT Status:** Signed by **183 nations**, ratified by **164**. Pending ratification by 8 **Annex-2 states**: **U.S., China, Iran, Egypt, Israel, India, Pakistan, North Korea.**

Monitoring:
- **International Monitoring System (IMS):** 300+ facilities in 89 countries using seismic, infrasound, hydroacoustic, and radionuclide tech to detect nuclear tests globally.

Fact Finder: Continent Wise Highest Mountain Peak

Blue Helmets

In News
- The world needs blue helmets to act with purpose, not remain passive.

About
- **Blue Helmets** are the United Nations peacekeeping forces, named after their distinctive helmets. First mission by these forces was launched in **1948** to monitor the Armistice Agreement between **Israel** and Arab countries.
- **Force Deployment** requires **consent** from conflicting parties and **UN Security Council authorization**.
- **UN peacekeeping forces** are formed on an **ad hoc basis** with personnel from member states as the **UN lacks a standing army.**

Core Principles:
- *Consent of the parties* involved in the conflict.
- *Impartiality*: Peacekeepers must remain neutral.
- *Non-use of force* except in self-defense or to protect the mandate.

Roles and responsibilities:
- Monitoring ceasefires, protecting civilians, disarming ex-combatants, supporting elections, promoting human rights and the rule of law.

Personnel:
- Approximately **81,820 active personnel** from over **120 countries**. **Bangladesh**, **Nepal**, and **India** are the top contributors.

SCIENCE & TECHNOLOGY

Aditya-L1 Mission

Context
- The first scientific result from the **Aditya-L1 mission** has been released.

About Aditya-L1 Mission:
- **India's first dedicated mission** to study the Sun, observing from **Lagrangian Point 1 (L1)**, where gravitational forces of the Sun and Earth are in equilibrium, allowing continuous, interference-free observations.

LignoSat: World's First Wooden Satellite

Context
- Japan has launched **LignoSat**, the first wooden satellite, to test wood as a space-grade material.

About LignoSat:
- Made from **honoki**, a Japanese magnolia, using traditional techniques without screws or glue.
- Developed by **Kyoto University** and **Sumitomo Forestry Co.**, it will orbit Earth for six months.
- It will study how wood handles **space's extreme conditions** and assess its potential to protect **semiconductors** from **space radiation**.

India meets WHO International Standards for Vaccine Regulations

Context
- The **World Health Organization (WHO)** has affirmed that India's **National Regulatory Authority (NRA)**, led by the **Central Drugs Standard Control Organisation (CDSCO)**, meets global benchmarks for a functional vaccine regulatory system. This follows a comprehensive review from September 16-20, 2024, using WHO's **Global Benchmarking Tool (GBT) Version VI**.

Details
- India retains **Maturity Level 3**, with the highest marks in several functions, reaffirming its role as a key player in global vaccine supply.
- The evaluation covered core regulatory areas like licensing, vigilance, market surveillance and clinical trial oversight.
- India's vaccine regulatory system ensures compliance with WHO standards, bolstering its reputation as a global vaccine supplier to over 150 countries.

Sun's Chromosphere

Context
- Astronomers have mapped the **differential rotation of the Sun's chromosphere** using 100 years of data from the **Kodaikanal Solar Observatory**.

Details
- The study shows that the Sun's equator rotates

faster (13.98°/day) than its poles (10.5°/day), offering insights into its magnetic field and solar activity.

- *Note: The chromosphere is a thin layer of plasma that lies between the Sun's visible surface (the photosphere) and the corona (the Sun's upper atmosphere). It extends for at least 2,000 km (1,200 mi.) above the surface.*
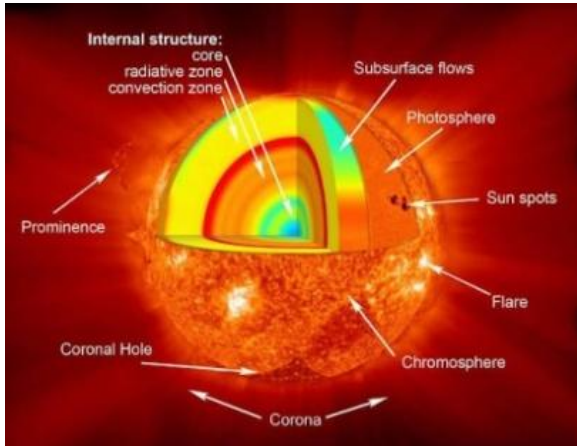
PSLV-37 Re-entry

Context

- **PSLV-C37** re-entered Earth's atmosphere.

Details

- On **15 February 2017**, the **PSLV-C37** launched a record 104 satellites, including **Cartosat-2D** and other co-passenger satellites. This mission had set a world record for the most satellites launched by a single vehicle.
- On **6 October 2024**, the upper stage (PS4) of **PSLV-C37** re-entered Earth's atmosphere after its orbit decayed. The re-entry, predicted by **ISRO System for Safe and Sustainable Space Operations Management**, occurred in the **North Atlantic Ocean**.
- This timely re-entry complied with **international debris mitigation guidelines**, including the **Inter-Agency Space Debris Coordination Committee**'s recommendation to limit defunct objects' orbital life to **25 years**.
- ISRO's proactive efforts to reduce the orbital lifetime of PSLV upper stages to under **5 years** and future controlled re-entries align with its **Debris Free Space Mission** target for **2030.**

Compounded vs. Generic Drugs: In News

Aspect	Compounded Drugs	Generic Drugs
Definition	Customized medications prepared based on doctor's prescription	Medications with same active ingredients as brand-name drugs
Purpose	Tailored for individual needs (dose, form, ingredients)	Affordable alternatives after brand patent expires
Regulation	Not as widely regulated, but must meet quality standards	Strictly regulated by authorities, same standards as branded
Use Cases	Allergies, unique dosages, non-available forms	Chronic conditions (e.g., hypertension, diabetes)
Production	Prepared in specialized pharmacies or hospitals	Produced after patent expiry, sold under chemical name
Cost	Higher, based on customization	Lower, more affordable than branded drugs
Example in India	Available in hospitals or specialized pharmacies	Paracetamol (generic), sold as Crocin, Calpol
Global Role	Limited international production	India produces 20% of the world's generic drugs

Konark Wheel Replicas unveiled at Amrit Udyan

Context

- **Four sandstone replicas** of the **Konark wheel** at **Rashtrapati Bhavan Cultural Centre** and **Amrit Udyan**.

Details

- The **Konark Sun Temple** in **Odisha** (UNESCO **World Heritage Site**) symbolizes a chariot for the **Sun god Surya**. It was built in **1250 CE** by **King Narasimhadeva I**. **Chandrabhaga Mela** is a major pilgrimage at the site.

- **24 wheels** in temple represent **time**, **months**, and **days of the week**; **seven horses** represent the days.
- Carvings include **foliage**, **birds**, and **medallions** with women. Spokes act as **sundials**.

SPADEX (Space Docking Experiment)

Context

- Ananth Technologies handed over two 400 kg

satellites to **ISRO** for the **Space Docking Experiment**.

Details
- **SPADEX** is an **ISRO** mission to develop technologies for **orbital rendezvous**, **docking**, and **formation flying**.
- It includes two **400 kg IMS class-2 satellites**: one **Chaser** and one **Target**, launched together in different orbits.
- <u>Launch</u>: Scheduled for **Mid-December 2024** from **Satish Dhawan Space Centre** aboard **PSLV**.
- SPADEX will support future missions like **Chandrayaan-4**, **Bharatiya Antariksha Station**, and **Gaganyaan**.

James Webb Space Telescope

Context
- James Webb Space Telescope (JWST) uncovered three massive galaxies, each 100 billion times the mass of our Sun.

James Webb Space Telescope (JWST)
- JWST, the <u>largest space telescope</u>, is designed for **infrared astronomy**. With a mirror **2.7 times larger** than Hubble's, it captures distant, faint objects. Launched in **2021.**

Atacama Large Millimetre/submillimeter Array (ALMA)
- ALMA, located in the **Atacama Desert**, **Northern Chile** consists of 66 telescopes observing **millimetre and submillimeter wavelengths**. Positioned at **5,000 m**, **Chajnantor plateau** – it provides detailed insights into **star and planet formation**. It is a global collaboration between **Europe, USA, Canada, Japan, South Korea, Taiwan**, and **Chile**.

James Webb Space Telescope
Source: NASA
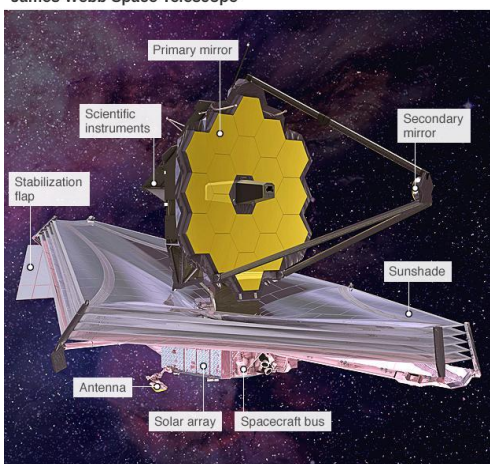
Parker Solar Probe

Context
- **NASA's Parker Solar Probe** is preparing for a crucial final flyby of Venus.

About Parker Solar Probe (PSP),
- NASA's **Parker Solar Probe (PSP)**, launched in **2018**, is on a mission to study the Sun's outer corona.
- The Parker Solar Probe will approach the **Sun** within **9.86 solar radii** and reach speeds of **690,000 km/h** by **2025**, making it the **fastest object** ever built.
- It is the <u>first NASA spacecraft named after a living person</u>, **physicist Eugene Newman Parker**.
- The probe will explore the Sun's **corona**, studying its **structure**, **plasma dynamics**, and **magnetic fields**. It will also investigate the **solar wind** and the processes that accelerate **energetic particles**.

Beaver Moon/ Supermoon

Context
- Beaver Moon, the last supermoon of 2024, occurred on November 15.

What is a Supermoon?
- A **supermoon** happens when the moon reaches its closest point to Earth, or **perigee**, in its elliptical orbit. This makes the moon appear **up to 14% larger** and **30% brighter** than an average full moon.

Industrial Alcohol

Context
- The **Supreme Court** in the **U.P. vs. M/S. Lalta Prasad Vaish** case held that states can tax both alcoholic beverages and industrial alcohol.

Regulation of Alcohol:
- The **Union Government** regulates industrial alcohol under the **Industries (Development and Regulation) Act, 1951**.

Seventh Schedule:
- **Entry 8 (State List)**: States regulate intoxicating liquor.
- **Entry 52 (Union List)**: Centre regulates industries for public interest.
- **Industrial Alcohol**: Ethanol (C_2H_5OH) with added impurities, unfit for human consumption.

Difference from Usable Alcohol:
- **Absolute Alcohol**: Pure ethanol, drinkable but caution required.
- **Denatured Alcohol**: Toxic, unfit for consumption due to additives like methanol.

Applications:
- **Absolute Alcohol**: Used in labs for sterilization and chemical extraction.
- **Denatured Alcohol**: Used in industry for fuel, solvents, but toxic for medical use.

BIOLOGY & ENVIRONMENT

Bran

Context

- A study published in *Nature Springer* highlights that removing the bran from millets reduces protein, dietary fiber, fat, minerals, and phytates, while increasing carbohydrates and amylose.

Key Points:

- **Bran**: The edible outer layer of grains like wheat, millets and rye, rich in dietary fiber and bioactive substances.
- **Effects of Bran Removal**:
  - **Decreases**: Protein, dietary fiber, fat, minerals, and phytates.
  - **Increases**: Carbohydrates and amylose.
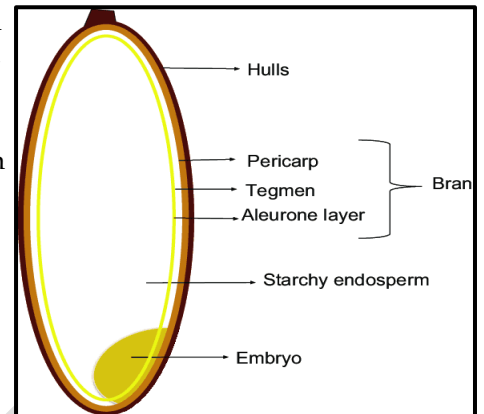
Nutraceuticals

Context

- India's Nutraceutical Industry is set for global growth with supportive initiatives.

What Are Nutraceuticals?

- Nutraceuticals are products with both food and medicinal qualities, promoting health, controlling symptoms and preventing diseases. The term, **coined in 1989 by Stephen DeFelice,** combines "nutrient" and "pharmaceutical."

Palm Oil

Context

- India's palm oil imports increased by 59% In October 2024.

Palm Oil:

- **Source**: Derived from the African oil palm tree (*Elaeis guineensis*).
- **Types**: **Crude palm oil**: Extracted from fruit pulp, used for cooking;
- **Palm kernel oil**: Extracted from seeds, used for non-food applications.
- **Production**: Yields about 5 times more than traditional oilseeds.
- **Uses**: Packaged foods, cosmetics, detergents, soap, ice cream, pharmaceuticals, and biofuels.
- **Import**: India is world's largest importer &2nd-largest consumer, primarily from Indonesia, Malaysia& Thailand.
- **National Mission on Edible Oils – Oil Palm (NMEO-OP)** launched to increase domestic production by 2025-26.Focuses on Northeast India and Andaman & Nicobar Islands. **Mizoram** first state in the Northeast to start planting oil palm.
- **World's Top Producers**:
  - **Indonesia**: 57% of global production.
  - **Malaysia**: 26% of global production.

Heavy Metal

Context

- Lead exposure causes $6 trillion in economic losses from premature death - Lancet Study.

About

- Heavy metals are naturally occurring elements with an **atomic number greater than 20** and an **atomic density over 5 g/cm³,** exhibiting metal-like characteristics. **Examples:** Arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, uranium.

Salience Network in Brain

Context

- A recent study has found the expansion of the salience network in individuals with depression.

Salience Network (SN):

- SN is composed of **anterior insula (AI)** and **dorsal anterior cingulate cortex (dACC)**.It detects and filters salient stimuli, guides attention, regulates emotional responses and processes **pain**, **emotion**, **reward** and **motivation**. **Role**: It facilitates switching between **default mode network (DMN)** (active during rest and daydreaming) and **central executive network (CEN)** (involved in cognitive tasks).Imbalances in the salience network are associated with mental health disorders.
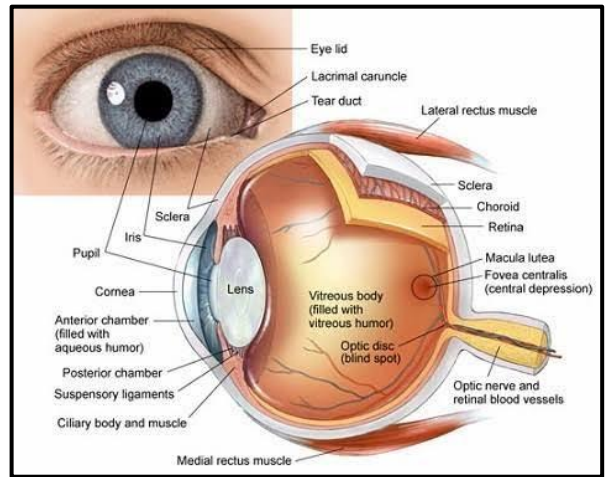
Cornea

Context

- The **Ministry of Health and Family Welfare** (MoH&FW) will amend the **Transplantation of Human Organs and Tissues Act (THOTA)**, 1994, to allow **cornea** retrieval from all Indian patients who die in hospitals without family consent.

Cornea

- Clear, dome-shaped front layer of the eye. Located in front of the anterior chamber, surrounded by sclera.
- **Function**: Protects inner eye structures, refracts light, absorbs oxygen.

Layers of the Cornea:

- **Epithelium**: Outermost layer, sensitive to pain, barrier.
- **Bowman's Layer**: Tough, provides structure.
- **Stroma**: Thickest, helps in light refraction.
- **Pre-Descemet's Layer (PDL)**: Airtight barrier, recent discovery.
- **Descemet's Layer**: Thin, stretchy, protective.

Starch

Context

- New studies show that our ancestors carried more **amylase genes** in multiple waves over several hundred thousand years.

Starch

- A non-reducing polysaccharide made of glucose monomers, with the chemical formula **$(C_6H_{10}O_5)n$**.
- **Composition**: Made of **amylose** (linear polymer) and **amylopectin** (branched form), with a varying ratio
- depending on the starch type (waxy, normal, high amylose).

Role:

- **Energy storage**: Plants store excess glucose as starch.
- **Dietary source**: Provides energy in animals.
- **Enzymatic breakdown**: Broken down by **amylase** (found in saliva and pancreas) for energy.

Uses:

- **Nutritional**: Provides glucose and essential nutrients (B vitamins, iron, calcium, folate).
- **Pharmaceutical**: Used as a binder in tablet and capsule production.
- **Dietary function**: Converts glucose into energy.
- **Culinary**: Used as a thickener and stabilizer in foods (puddings, soups, sauces).

Lipids

Context
- Low metabolic flexibility to lipids (MetF-lip) in skeletal muscle can lead to ectopic lipid accumulation, causing metabolic disturbances.

Metabolic Flexibility (MetF)
- The **ability to adjust fuel oxidation (carbs or fats)** based on availability to ensure ATP synthesis matches energy needs.

Lipids:
- Organic molecules (fats and oils) essential for energy storage, cell membranes, hormones, and vitamins.

Types of Lipids:
- **Fats (Triglycerides)**: Energy storage, insulation, organ protection.
- **Phospholipids**: Form cell membranes.
- **Steroids**: Cholesterol and hormones like estrogen.

Functions of Lipids:
- Long-term energy reserve (9 cal/gram).
- Protect organs and assist in vitamin absorption.
- Aid in hormone production and nerve signal transmission.

Good vs. Bad Fats:
- **Good Fats**: Found in nuts, fish, olive oil; reduce bad cholesterol (LDL).
- **Bad Fats**: Found in processed foods; increase LDL and heart disease risk.

Types of Fats:
- **Saturated Fats**: Raise cholesterol (e.g., butter).
- **Unsaturated Fats**: Improve heart health (e.g., fish).
- **Trans Fats**: Harmful, raise bad cholesterol.

What's the difference between an endemic, epidemic and pandemic disease?

Endemic disease	Epidemic disease	Pandemic disease
Constantly present in a population or region, with relatively low spread	Sudden increase in cases spreading through a large population	Sudden increase in cases across several countries, continents or the world

Source: Wellcome — BBC

Endemic Diseases in India
At least 14 endemic diseases already prevalent in India

DISEASE	CAUSE
Dengue	Virus
Chikungunya	Virus
Echinococcosis	Tapeworm
Kala-azar	Protozoa
Leprosy	Bacteria
Soil-transmitted helminthiases	Worm
Taeniasis/cysticercosis	Tapeworm
Trachoma	Bacteria
Foodborne trematodiases	Flatworm
Lymphatic filariasis	Worm
Rabies	Virus
Snakebite	Venom
Mycetoma	Bacteria
Scabies	Mites

Source: World Health Organisation

GENERAL SCIENCE [STATIC GK]

- **For a constant wavelength**, if the frequency is doubled, the velocity of the wave will also get doubled.

- **Energy of photon** decreases with increasing wavelength.

- **A car moving in a circular path** experiences an inward force called **centripetal force**, which keeps it in circular motion. This force is always directed toward the center of the circle.

- **Cloud seeding** enhances precipitation by introducing substances like **silver iodide** into clouds to form ice crystals and encourage rainfall in drought areas.

- **Antibiotics** treat **bacterial infections** by interfering with the **bacterial cell wall**, **protein synthesis**, or **DNA replication** processes.

- **Optical fibers** use the principle of **total internal reflection** to transmit light over long distances with minimal signal loss.

- **Gravitational lensing** occurs when light from a distant star or galaxy is bent around a massive object like a **black hole** or **galaxy cluster**, due to gravity. This phenomenon, predicted by **Einstein's theory of relativity**.

What is a heat dome?
- A heat dome occurs when an area of high-pressure traps warm air over a region, just like a lid on a pot, for an extended period of time.
- The longer that air remains trapped, the more the sun works to heat the air, producing warmer conditions with every passing day.
- Heat domes generally stay for a few days but sometimes they can extend up to weeks, which might cause deadly heat waves.

Differences between C_3 and C_4 plants

S. No.	C_3 Plants	C_4 Plants
1.	CO_2 fixation takes place in mesophyll cells only.	CO_2 fixation takes place mesophyll and bundle sheath.
2.	CO_2 acceptor is RUBP only.	PEP in mesophyll and RUBP in bundle sheath cells.
3.	First product is 3C- PGA.	First product is 4C- OAA.
4.	Kranz anatomy is not present.	Kranz anatomy is present.
5.	Granum is present in mesophyll cells.	Granum present in mesophyll cells and absent in bundle sheath.
6.	Normal Chloroplast.	Dimorphic chloroplast.
7.	Optimum temperature 20° to 25°C.	Optimum temperature 30° to 45°C.
8.	Fixation of CO_2 at 50 ppm.	Fixation of CO_2 even less than 10 ppm.
9.	Less efficient due to higher photorespiration.	More efficient due to less photorespiration.
10.	RUBP carboxylase enzyme used for fixation.	PEP carboxylase and RUBP carboxylase used.
11.	18 ATPs used to synthesize one glucose.	Consumes 30 ATPs to produce one glucose.
12.	Efficient at low CO_2.	Efficient at higher CO_2.
13.	Example: Paddy, Wheat, Potato and so on.	Example: Sugar cane, Maize, Sorghum, Amaranthus and so on.

- **Bernoulli's principle** explains how an airplane's wing shape generates lift. Faster air over the curved top reduces pressure, creating an upward force that lifts the plane.

- **Piezoelectric Effect** converts **mechanical pressure** into electricity, used in **microphones** and **lighters**.

- **Doppler Effect** in **radar** is used to measure speed in **speed guns** and weather systems.

- In **ultrasound imaging**, **sound waves** create internal body images for medical diagnostics.

- **Surface tension** in liquids enables phenomena like **capillary action** in plants.

- **Fiber Optics** transmits data as light through cables, critical for internet and medical imaging.

- **Proteomics** is the study of the entire protein set expressed by an organism. It is crucial for understanding diseases.

- **Prions** are infectious **protein particles** that cause **neurodegenerative diseases** like **Creutzfeldt-Jakob disease**.

- **Autophagy** is a natural process in which a cell breaks down and recycles old, damaged, or unnecessary parts of itself.

- **Neuroplasticity** is the brain's ability to adapt by reorganizing **neural networks** or growing new neurons in response to learning and experience.

CLASSIFICATION OF STEM CELLS

Type	Description
Pluripotent	• Able to differentiate into almost all cell types. • Eg: Cells derived from mesoderm, endoderm, ectoderm.
Totipotent	• Able to differentiate into any other type of cell. • Eg: Zygote formed at egg fertilization.
Multipotent	• Able to differentiate into a closely related family of cells. • Eg- Hematopoetic stem cells
Oligopotent	• Able to differentiate into a few different cell types • Eg- Lymphoid and myeloid stem cells
Unipotent	• Able to produce only their own types of cells. • Eg: Muscle stem cells

Stem cells are undifferentiated biological **cells** that can differentiate into specialized **cells** and can divide (through mitosis) to produce more **stem cells**.

They have two defining properties-
➢ The ability to self generate
➢ The ability to differentiate into other cells

Microorganism	Cell Type	Cell Wall	Cell Membrane	Nucleus	Additional Features
Bacteria	Prokaryotic	Peptidoglycan	Phospholipid bilayer	Lack a true nucleus	Flagella, pili, capsule
Archaea	Prokaryotic	Pseudopeptidoglycan, S-layers. Absence of peptidoglycan	Ether linked	Lack a true nucleus	Unique membrane lipids
Protists	Eukaryotic	Cellulose in plant-like protists, silica in diatoms, and chitin in certain fungi-like protists.	Phospholipid bilayer	A true nucleus enclosed in a nuclear envelope.	Cilia, flagella, pseudopodia
Fungi	Eukaryotic	Chitin, a complex polysaccharide.	Phospholipid bilayer	A true nucleus enclosed in a nuclear envelope.	Hyphae, mycelium, spores
Algae	Eukaryotic	Cellulose, sometimes supplemented with additional polysaccharides like agar or carrageenan.	Phospholipid bilayer	A true nucleus enclosed in a nuclear envelope.	Chloroplasts, pigments, flagella
Viruses	Not classified	Lack cell walls; instead, they have a protein coat (capsid) surrounding their genetic material, which can be DNA or RNA.	Protein Coat	Do not have a true nucleus.	Genetic material (DNA or RNA)
Protozoa	Eukaryotic	Variable cell wall compositions, including cellulose, pellicle, or a proteinaceous layer, depending on the species.	Phospholipid bilayer	A true nucleus enclosed in a nuclear envelope.	Pseudopodia, cilia, flagella

- **Horizontal Gene Transfer** in **Evolution** examines how **bacteria**, **archaea**, and even higher organisms exchange genes to adapt to extreme environments.

- The force that opposes the motion of an object through a fluid is called **Drag**.

- The **Sun** appears red during **sunrise** and **sunset** because **blue light** is scattered out of sight.

- The principle of **conservation of mass** was proposed by **Antoine Lavoisier**.

- **Chlorophyll** absorbs light most effectively in the **red** and **blue wavelengths** but reflects **green light**, which is why leaves appear green.

- **Silver** has the highest **electrical conductivity** of any material, meaning it allows electricity to flow through it most easily.

- **Tungsten** is used in light bulb filaments because it has a **high melting point** and can withstand the heat

generated when an electric current passes through it, producing light.

- **Violet light** has the shortest **wavelength** in the visible spectrum, approximately **380–450 nm**, compared to **red light**, which has the longest.

- Shorter wavelengths (**blue light**) are scattered more efficiently by air molecules, making the **sky** appear blue.

- The **Mohs scale** measures the **hardness** of materials based on their ability to scratch softer substances.

- **Energy is a scalar quantity** because it has only magnitude, not direction.

- **Nitrogen or argon gas is used in electric bulbs** to prevent the tungsten filament from oxidizing and burning out quickly.
- **Sound is a longitudinal wave**, meaning air molecules oscillate parallel to the direction of wave propagation.

- Electromagnetic waves **(light, radio, infrared), which can travel through a vacuum.**

DEFENCE & SECURITY

Exercises in News

Exercise	Details
Vajra Prahar	**Context** • The **15th edition** of the India-US joint **Special Forces Exercise Vajra Prahar** was held in **USA**. **Details**: • **Started in 2010**, focusing on joint **Special Forces operations** in **desert/semi-desert environments**. **Objective** • Enhance **military cooperation**, **interoperability** and mutual exchange of special operations tactics. **India-US Military Exercises**: • **Bilateral**:**Yudh Abhyas** (Army), **Cope India** (Air Force), **Tiger Triumph** (Tri-Service), **Sangam** (Naval Special Forces). • **Multilateral**: **Malabar** (Navy), **RIMPAC** (Navy), **Milan** (Navy), **La Perouse** (Navy), **Pitch Black** (Air Force), **Red Flag** (Air Force).
Garud Shakti	**Context** • The **9th edition** of the India-Indonesia **Special Forces Exercise Garud Shakti** was held in **Jakarta, Indonesia**. **Key Facts**: • **Started in 2012** in India. **Objective**: Enhance **cooperation**, **interoperability**, and mutual understanding between the Special Forces of both armies. **Other details**: • **Samudra Shakti** and **IND-INDO CORPAT** are naval exercises between India and Indonesia. • **No regular bilateral air exercises** between the two countries.
VINBAX-2024	**Context** • The **5th Edition** of the **Vietnam-India Bilateral Army Exercise VINBAX-2024** began in **Ambala, India**. **Details**: • **Initiated in 2018**, the exercise alternates between **India** and **Vietnam**. • **Aim**: Promote **interoperability**, collaboration and share best practices for **Peace Keeping Operations** under the **United Nations**. **Note:** This edition marks the **first Bi-Service level participation** by Army and Air Force personnel from both countries.
Antariksha	**Context**

Abhyas – 2024	• India's **Defence Space Agency (DSA)** conducted **Antariksha Abhyas – 2024** **Details** • **It is** India's **first space-focused military exercise**. • **Agencies**: **ISRO**, **Defence Research and Development Organisation.** • **Aim:** Strengthen **India's space defense capabilities**. Assess vulnerabilities in **space assets**. • **Expected Outcomes: Enhanced coordination** among defense, intelligence, and space agencies. Improved **preparedness for potential space threats**. Advancement in **space-defense technologies** for future.
Naseem-Al-Bahr	**Context** • INS Trikand and Dornier Maritime Patrol Aircraft, participated in Naseem-Al-Bahr. **About Naseem-Al-Bahr** • Bilateral naval exercise between India and Oman, **initiated in 1993.** • Oman is the **first Gulf Cooperation Council country to conduct joint exercises with India.**
India-Brazil-South Africa Maritime (IBSAMAR) VIII	**Context** • Indian Navy's INS Talwar arrived in South Africa for IBSAMAR VIII. **About IBSAMAR VIII** • A **trilateral maritime exercise** with the navies of India, Brazil and South Africa. • **Objective**: Enhance interoperability and foster cohesion between the three navies, focusing on Blue Water Naval Warfare, including Surface and Anti-Air Warfare. • **INS Talwar:** Commissioned in 2003, INS Talwar is a stealth frigate under Western Naval Command, Mumbai.
Exercise Malabar	• **Schedule:** Held from 8–18 October 2024. **Participants:** India (host), Australia, Japan, and the United States. • **Began in 1992** as a bilateral drill (India-US), now a major multilateral exercise in the Indian Ocean and Indo-Pacific regions. **Focus:** Enhancing interoperability, special operations, surface, air, and anti-submarine warfare.
Sagar Kavach	**Context** • Conducted by: Indian Coast Guard (ICG), October 16-17, 2024, across Gujarat, Daman & Diu, Goa, and Maharashtra. **Details** • **Participants:** Indian Navy, BSF, NSG, IB, State Police, Marine Police, and port authorities. • **Assets Deployed:** Ships, boats, drones, and aircraft for surveillance. • **Focus Areas:** Address infiltration, piracy, smuggling, natural disasters and terrorist threats. • **ICG:** Established in 1977, operates over 150 ships and 60+ aircraft, headquartered in New Delhi, ensuring India's maritime security.
Sea Vigil-24: Coastal Defence Exercise	**Context** • Indian Navy conducted the fourth edition of Coastal Defence Exercise 'Sea Vigil-24'. **Details** • **Started in:** 2018**Objective:** Validate and enhance maritime security post-26/11. • **Focus Areas:** Securing coastal assets and critical infrastructure. • **Aim:** Raise awareness of maritime security in coastal communities.
AUSTRAHIND	**Context** • The 3rd edition of joint military Exercise AUSTRAHIND began at Pune, Maharashtra. **Details** • **Participants:** Indian and Australian armies. • **Frequency:** Annual, alternates between India and Australia. • **Aim:** Enhance interoperability in joint sub-conventional operations. • **Other India-Australia Military Exercises:** • **AUSINDEX:** Biennial naval exercise, • **PITCH BLACK**: Biennial air combat exercise, • **SINGAEX:** Multilateral army exercise, • **SLINEX:** Annual naval exercise (with occasional Australian participation),

	• **INDO-PACIFIC ENDEAVOR:** Annual humanitarian and disaster relief exercise.
Singapore India Maritime Bilateral Exercise (SIMBEX)	**Context** • The 31st SIMBEX Exercise was held at Visakhapatnam. **About SIMBEX:** • **Started** as **'Exercise Lion King' in 1994. Participants:** Indian Navy and Republic of Singapore Navy. **Phases:** Harbour Phase (Visakhapatnam) and Sea Phase (Bay of Bengal). • **Purpose:** Strengthen India-Singapore partnership, enhance interoperability, and improve maritime awareness.

OTHERS

Pinaka Multi-Barrel Rocket Launch System
Context
• France is evaluating India's **Pinaka Multi-Barrel Rocket Launch System** for its defense requirements.
Details:
• **Developed by**: Defence Research and Development Organisation.
• **Name Origin**: Named after "Pinaka," a mythical weapon used by Lord Shiva.
• **Range**: Capable of hitting targets up to **75 kilometers** and beyond.
• **Salvo Capability**: Fires **12 rockets in 44 seconds**, making it effective for overwhelming enemy defenses.
• **Exports**: Armenia is the first export customer; several countries have expressed interest.

DRDO's Long-Range Land Attack Cruise Missile
Context
• Maiden flight test successful.
Details:
• **Launch:** From mobile ground systems and frontline ships.
• **Features:** Advanced avionics, subsonic terrain-hugging flight for stealth.
• **Development:** By DRDO with Bharat Dynamics Limited (BDL) and Bharat Electronics Limited (BEL) as partners.
• **Approval:** Sanctioned by Defence Acquisition Council (DAC).
Defence Acquisition Council (DAC)
• **Formed:** In 2001 after the Kargil war.
• **Role:** Highest defense procurement body. It is **chaired by Defence Minister.**
• **Functions:** Approves acquisition proposals, offsets and long-term plans. Decides policies and capital acquisitions for the Army, Navy, Air Force, and Coast Guard.

Central Industrial Security Force (CISF)
Context
• The Union Home Ministry has approved the first all-women battalion of the Central Industrial Security Force (CISF), announced during the 53rd CISF Day function.
About CISF:
• **Established:** 1969, became an armed force in 1983. **Strength:** Over 1,88,000 personnel, 7% women.
• **Headquarters:** New Delhi, led by Director General (IPS officer).
• **Functions:** Provides security to nuclear facilities, airports, seaports, and monuments (e.g., Taj Mahal), manages airport security, VIP security, and offers fire protection services.
• **Special Initiatives:** Expanded role post-2008 Mumbai attacks, including securing private establishments. The new all-women battalion will focus on VIP security and public-facing roles.

INS Aridhaman
Context
• **India's fourth nuclear-powered ballistic missile submarine (SSBN)**, INS Aridhaman (S4)was launched.
Submarines in Indian Navy:
• **S1 (INS Chakra)**: Leased nuclear submarine.
• **S2 (INS Arihant)**: K-15 missile, **750 km** range, on deep sea patrol.
• **S3 (INS Arighaat)**: **K-4 missile**, **3,500 km** range, commissioned in August 2024, on deep sea patrol.
• **S4 (INS Aridhaman)**: **K-4 missile**, **3,500 km** range, to be commissioned in 2025.
• *INS Aridhaman is a stretched version of INS Arihant with **1,000 tons** more displacement, enhancing its SLBM capacity and second-strike capability.*
Ballistic Missile Submarine (SSBN):
• A nuclear-powered submarine capable of launching **nuclear-armed missiles** (SLBMs), providing strategic deterrence with hard-to-detect capabilities. Major SSBN operators include **USA** and **Russia**.

IMPORTANT ARMY OPERATIONS (STATIC GK)

Names of Operation	Location	Notes
Operation Polo (1948)	Hyderabad	Indian armed forces ended the rule of the Nizam of Hyderabad and led to the incorporation of the princely state into the Indian Union.
Golden Temple Raid I (1955)	Punjab	To curb the Punjabi Suba Morcha.
Operation Vijay (1961)	Goa, Daman & Diu	Operation by the Military of India that led to the incorporation of Portuguese India (Goa, Daman, and Diu) into India.
Operation Steeplechase (1971)	Red Corridor	Combined operation against Naxalites.
Amalgamation of Sikkim (1975)	Sikkim	Indian Army disarmed and disbanded the Royal Guard of the Sikkimese King, after which Sikkim joined India as a State of India.
Operation Blue Star (1984)	Punjab	Carried out to remove religious leader Jarnail Singh Bhindranwale and his followers from the Harmandir Sahib complex in Amritsar.
Operation Shivalik (1985)	Karnataka, Madhya Pradesh, Maharashtra, Himachal Pradesh, Haryana, Uttar Pradesh (Terai regions)	To capture Sikh militant leaders outside the Punjab state.
Operation Black Thunder I (1986)	Punjab	Capture of the Golden Temple over suspected militants. 2 civilians and 1 soldier killed.
Operation Pacification (1986)	Punjab	
Operation Mand (1986)	Punjab	To capture or kill Avatar Singh Bramha, a Sikh militant. 1 helicopter lost, no militant detained.
Operation Bluebird (1987)	Manipur	Indian retaliation operation to the 1987 attacks on the Assam Rifles' outpost.
Golden Temple Raid II (1987)	Punjab	Rumor that militant Gurjit Singh was in the Golden Temple complex. Not found.
Operation Pawan (1987)	Sri Lanka	Operations by the Indian Peace Keeping Force to take control of Jaffna from the LTTE as part of the Indo-Sri Lankan Accord.
Operation Black Thunder II (1988)	Punjab	Capture of Golden Temple, 90+ militants surrendered, 2 soldiers killed, many militants escaped.
Operation Night Dominance (1990-1994)	Punjab	To control the landscape of Punjab at night.
Operation Rakshak I (1990)	Punjab	To curb Sikh militancy.
Operation Vadhi Pahar (1991)	Punjab	Indian Police and Army operation to kill militant Seetal Singh Mattewal.
Operation Election (1992)	Punjab	To ensure a secure election, though militants boycotted it; only 21% voted.
Golden Temple Raid III (1992)	Punjab	To stop commemoration of the assassins of General Shidhar Vaidya.
Operation Sarp Vinash (2003)	Jammu and Kashmir	Assault on largest system of insurgent hideouts in Jammu and Kashmir, over 60 militants killed.
Operation Black Tornado (2008)	Mumbai, Maharashtra	Against the 2008 Mumbai Terror Attacks.
Operation All Out (1990)	Jammu and Kashmir	Flushing out militants from the Kashmir region of Jammu and Kashmir state.
2015 Indian counter-	Myanmar	Indian Army conducted hot pursuit of Naga terror outfit

insurgency operation (2015)		NSCN-Khaplang along the India-Myanmar border.
Operation Devi Shakti (2021)	Punjab, Haryana, Delhi, Afghanistan	To help fleeing Hindus and Sikhs from Afghanistan.
Operation Ganga (2022)	Ukraine	To evacuate Indian citizens amidst the 2022 Russian invasion of Ukraine.

BILATERAL MILITARY EXERCISES
OF INDIAN ARMY, AIR FORCE AND NAVY

Country	Exercise	Country	Exercise
U.S.A.	Vajra Prahar (Army), YudhAbhyas (Army), Red Flag (Air Force), Tiger Triumph (Tri-service)	Mongolia	Nomadic Elephant (Army)
		Myanmar	Imbex (Army), IMCOR (Navy)
Australia	Austra Hind (Army), AUSINDEX (Navy)	Nepal	Surya Kiran
Bangladesh	Sampriti (Army), Corpat & Bongosagar (Navy)	Oman	AL NAGAH (Army), Naseem-al-Bahr (Navy), EASTERN BRIDGE (Air force)
China	Hand In Hand, Chang Thang (Army)	Qatar	Za'ir-Al-Bahr (Roar of the sea)
France	Shakti (Army), Varuna (Navy), Garuda (Army)	Russia	INDRA Tri-services (biennial)
		Seychelles	LAMITYE Army (biennial)
Indonesia	Garuda Shakti (Army), IND-INDO CORPAT & IND-INDO BILAT & Samudra Shakti (Navy)	Singapore	SIMBEX (Navy)
		Sri Lanka	MITRA SHAKTI (Army), SLINEX (Navy)
Japan	SHINYUU Maitri (Air force), Dharma Guardian (Joint), Sahyog-Kaijin (Coast Guard), JIMEX (Navy)	Thailand	MAITREE
		UK	AJEYA WARRIOR (Army), KONKAN (Navy), Indradhanush (Air force)
Kazakhstan	Prabal Dostyk (Army)	UAE	DESERT EAGLE (Air force)
Kyrgyzstan	Khanjar (Army)	Uzbekistan	Dustlik (Army)
Maldives	Ekuverin (Army)	Vietnam	VINBAX (Army)
Malaysia	Harimau Shakti (Army)		

ECONOMICS

21st Livestock Census
Context
- **21st Livestock Census** will take place from **October 2024 to February 2025**.

Details
- It will count **16 key animal species** and **219 indigenous breeds**.
- Introduces **digitalization** in data collection using mobile apps, digital dashboards, and **GPS tagging**.
- **New data points**: **Pastoral animals**, **pastoralists' socio-economic data**, and livestock contributions.
- First-time inclusion of **gender roles** in livestock rearing (data on primary person involved).
- Includes **poultry species** such as chicken, duck, turkey, quailand emu.

> The Livestock Census is a headcount of domesticated, poultry, and stray animals in India covering both rural and urban areas. The first Livestock Census in India was conducted in 1919-1920. Since then, it has been conducted once in every five years.

Inflation
Context
- The Ministry of Statistics & Programme Implementation (MoSPI) reported a **6.2% retail inflation** in October 2024.

Details
- **Retail inflation (CPI)** rose to **6.2%** in October 2024.
- **Food inflation (CFPI)** surged to **10.87%**, the highest since August 2023.
- Inflation breached the **RBI's upper tolerance limit of 6%**.
- The **Monetary Policy Framework Agreement (MPFA)** aims to maintain inflation within **2%-6%**.

50th Foundation Day of Coal India Limited
Coal India Limited (CIL)
- **Foundation**: Established in **1975**, marking its **50th Foundation Day** in 2024.
- **Headquarters**: Located in **Kolkata**, operates under the **Ministry of Coal**.
- World's largest coal mining corporation, meeting **78% of India's coal production** needs.

Coal Mining and Trade in India
- **Coal Mining**: Began in **1774** by M/s Sumner and Heatly, Raniganj Coalfield, Damodar River.
- **Nationalisation**: Coking coal mines (1971-72), non-coking coal mines (1973).
- **Imports (2023-24)**: 249.06 MT; **Indonesia** (56.01%), **South Africa** (14.04%), **Russia** (8.69%), **Australia** (6.95%), **US** (second-largest coking coal supplier).
- **Exports (FY24)**: Primarily to **Nepal** (73.2%), **Bangladesh** (0.245 MT), **Bhutan** (0.053 MT), others (0.032 MT).

Types of Coal
- **Anthracite**: 80-95% carbon, high calorific, burns with blue flame, found in **J&K**.
- **Bituminous**: 60-80% carbon, high calorific, low moisture, found in **Jharkhand, WB, Odisha, Chhattisgarh, MP**.
- **Lignite**: 40-55% carbon, high moisture, brown, smoky, found in **Rajasthan, Assam, TN**.
- **Peat**: **<**40% carbon, low calorific value.

IMF World Economic Outlook (WEO) 2024 Report By IMF
Context
- **India's Growth Projections**: 7% for **FY2024**, 6.5% for **FY2025**.
- **WEO Report**: Published biannually (April, October) by IMF. Analyzes global and country-specific economic trends, offers policy recommendations.

International Monetary Fund (IMF)
- **Purpose**: Promotes global economic growth, financial stability, international trade, and poverty reduction.
- **Established**: 1944, Bretton Woods Conference.
- **Key Reports**: World Economic Outlook (WEO), Global Financial Stability Report (GFSR).

Annual Survey of Industries Report 2022-23
Manufacturing Sector
- **Employment**: 7.5% growth, 13 lakh jobs added
- **Gross Value Added and Output**: Gross Value Added up 7.3% (Rs 21.97 lakh crore), output up 21.5%
- **Key Drivers**: Basic metals, petroleum, food, chemicals, motor vehicles (58% of output)
- **Top States**: Tamil Nadu, Maharashtra, Gujarat, Uttar Pradesh, Karnataka

- **Factories**: 2.49 lakh to 2.53 lakh
- **Informal Sector**: 1.5% decline
- **Salaries**: Average salary up 6.3%, Rs 3.46 lakh

About Annual Survey of Industries
- **Purpose**: Key source of industrial statistics, conducted annually since 1960
- **Agency**: National Statistical Office, Ministry of Statistics and Programme Implementation
- **Scope**: Covers factories, bidi and cigar manufacturing, unregistered electricity units
- **Data Collection**: From selected factories under the Collection of Statistics Act

India's Logistics Sector: Key Statistics
- In 2023, the Indian logistics market was valued at **US$282.3 billion.** Logistics cost is **13% of GDP.**
- Transportation segment currently dominates India's logistics market.

2015 Railway Reforms Expert Committee headed By Bibek Debroy (In News)
Objective
- Restructure Indian Railways for financial stability, competitiveness, and operational efficiency.

Key Recommendations:
Implemented:
- **Merger of Railway Budget:** Merged with the General Budget in 2017.
- **Chief Executive Officer (CEO) Role:** Railway Board Chairman renamed CEO in 2020 for faster decision-making.
- **Offloading Non-Remunerative Services:** Services like security (Railway Protection Force) and employee facilities were offloaded.
- **Rashtriya Rail Sanraksha Kosh (RRSK):** Rs. 1 lakh crore fund set up in 2017 for upgrading safety assets.

Not Accepted:
- **Liberalization:** New operators' entry still not approved.
- **Performance Assessment System:** "Under examination" by the Ministry of Railways.

70th-Year Celebrations of Engineering Export Promotion Council (EEPC) India
Context
- EEPC India, **established in 1955**, is a trade and investment promotion organization for the engineering sector, **sponsored by the Ministry of Commerce & Industry.**

Functions:
- Acts as an advisory body, contributing to policy development and linking the engineering industry with the government. Organizes buyer-seller meetings, overseas trade fairs, and India pavilions

at international exhibitions. **Hosts the India Engineering Sourcing Show (IESS)** and supports the India Engineering Exhibition (INDEE).

Publishes reports on international trends and opportunities.
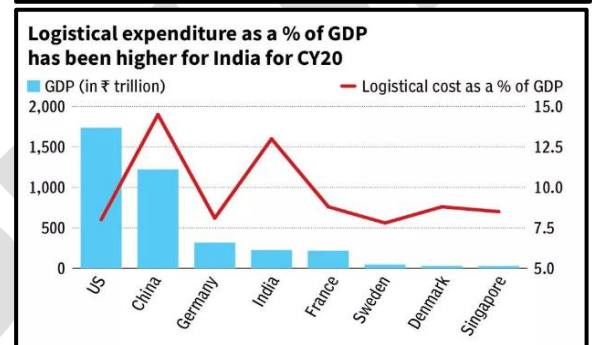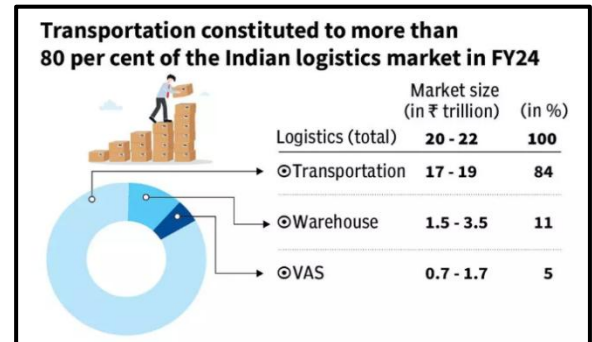
CPI and IIP Data Release Timing Revised
Context
- Ministry of Statistics and Programme Implementation now releases **CPI** and **IIP** data at **4 PM** (earlier 5:30 PM) on the 12th of each month to allow more access time.

Consumer Price Index (CPI):
- **Purpose:** Tracks retail price changes of goods/services consumed by households.
- **Types:**
  - CPI for Industrial Workers (IW)
  - CPI for Agricultural Labourers (AL)
  - CPI for Rural Labourers (RL)
  - CPI (Rural/Urban/Combined)
- **Compilation:**
  - IW, AL, RL: By Labour Bureau, Ministry of Labour.
  - Rural/Urban/Combined: By NSO, MoSPI.
- **Base Year:** 2012; **CPI-IW updated to 2016** by the Labour Ministry.

Index of Industrial Production (IIP):
- **Purpose:** Measures growth rates in **manufacturing, mining, and energy** sectors.
- **Base Year:** Updated to **2011-12** from 2004-05 in 2017.
- **Components:**
  - Broad sectors: Mining, Manufacturing, Electricity.
  - Use-based sectors: Primary, Capital, Intermediate Goods, Consumer Durables.
- **Core Industries (40.27% of IIP):** Electricity, Steel, Refinery Products, Crude Oil, Coal, Natural Gas, Cement, Fertilizers.
- **Publishing Authority:** Central Statistical Organisation (CSO).
  - Index of 8 Core Industries by Office of the Economic Adviser, DPIIT, Ministry of Commerce and Industry.

Transportation constituted to more than 80 per cent of the Indian logistics market in FY24

	Market size (in ₹ trillion)	(in %)
Logistics (total)	20 - 22	100
⊙Transportation	17 - 19	84
⊙Warehouse	1.5 - 3.5	11
⊙VAS	0.7 - 1.7	5

Logistical expenditure as a % of GDP has been higher for India for CY20

Land Ports Authority of India
Context
- Home Minister inaugurated a Passenger Terminal Building, **Maitri Dwar** at ICP Petrapole, West Bengal.

About LPAI:
- **Established:** Under the **Land Ports Authority of India Act, 2010**, operational since 2012.
- Functions under the **Ministry of Home Affairs** (Department of Border Management).
- Recommended by the Committee of Secretaries, 2003.
- Develops **Integrated Check Posts (ICPs)** to secure, streamline cross-border movement.

Integrated Check Posts (ICPs):
- **Facilities:** Warehouses, container depots, cargo complexes, hotels, restrooms.
- **Significance:** Ensures ease of trade, travel; critical for bilateral trade.

Key ICPs:
- **Petrapole, West Bengal:** Largest, busiest land port in South Asia, handles **70% of India-Bangladesh**

land trade.
- **Other operational ICPs: Attari, Punjab (Pakistan)**; **Agartala, Tripura (Bangladesh)**; **Raxaul, Bihar (Nepal)**; **Moreh, Manipur (Myanmar)**; **Sutarkandi, Assam (Bangladesh)**; **Srimantapur, Tripura (Bangladesh)Dera Baba Nanak, Punjab:** For Kartarpur Sahib pilgrims (Pakistan).

Under Construction:
- **Dawki, Meghalaya (Bangladesh); Rupaidiha, UP (Nepal):** Will be the **third land port** for India-Nepal border; **Sunauli, UP (Nepal)**

India's Fertilizer Sector
Context
- Wars in Ukraine, Gaza have raised fertiliser costs, increasing India's import dependency.

Fertilisers by Nutrient Supply
- **Primary Fertilisers:** Supply **Nitrogen (N)**, **Phosphorus (P)**, **Potassium (K)**; include Urea (Nitrogenous), DAP (Phosphatic), Muriate of Potash (Potassic).

- **Secondary Fertilisers:** Calcium, Magnesium, Sulphur, Zinc, etc.
- **Micronutrients:** Iron, Zinc, Boron, Chloride, etc.

India's Fertiliser Scenario
- **Production Rank:** 3rd largest globally, 2nd in Nitrogen, 3rd in Phosphates.
- **Import Dependency:**
  - **Urea:** 20% imported.
  - **Di-Ammonium Phosphate:** 50-60% imported.
  - **MOP:** 100% imported, no domestic production.

Major Import Markets (2022, OECD)
- **Top Suppliers:** Russia ($2.73B), Saudi Arabia ($2.46B), China ($2.1B), Morocco ($1.74B), Oman ($1.26B).
- **Fastest-Growing:** Russia, Saudi Arabia, Morocco.

Digital Public Infrastructure
Context
- India's G20 presidency highlighted **Digital Public Infrastructure (DPI)** as a key driver of development.

Digital Public Infrastructure (DPI)
- DPI enables economic opportunities and efficient service delivery by connecting people, data, and capital, similar to how roads and railways connect people and goods.

Key Components
- **Digital Identification Systems (DIS):** Aadhaar for unique identification.
- **Payment Infrastructure:** Unified Payments Interface (UPI) for secure transactions.
- **Data Exchange Solutions:** Standardized, secure frameworks for data sharing.
- **Data Infrastructure:** Systems like Digilocker for data privacy and sovereignty.
- **Cybersecurity Frameworks:** Protects digital assets (e.g., Information Security Management System (ISMS)).
- **Broadband and Connectivity:** Ensures access to high-speed internet.

Categories of DPI

- **Foundational DPI:** Initiatives like Aadhaar, UPI, Data Empowerment and Protection Architecture (DEPA).
- **Sectoral DPI:** Specialized services like the Ayushman Bharat Digital Mission for healthcare.

Information Security Management System (ISMS)
- Manages sensitive data, minimizes risks, and ensures continuity during security breaches.

Middle-Income Trap
Context
- The **World Development Report 2024** by the **World Bank** highlights the issue of the **"middle-income trap."**

What is the Middle-Income Trap?
- It refers to a situation where a country's GDP per capita reaches a middle-income level but fails to transition to a high-income status. The term was introduced by the **World Bank** in 2007. As of 2024, **108 countries** are trapped, including **Brazil**, **China**, **South Africa**. These countries account for **40%** of global GDP.

Reserve Bank Climate Risk Information System (RB-CRIS)
Context
- The **Reserve Bank** proposes to establish **RB-CRIS**, a data repository.
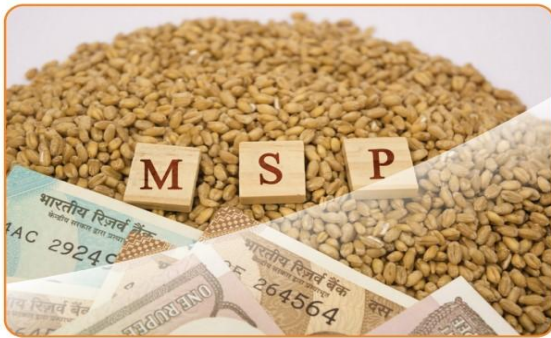
About Reserve Bank Climate Risk Information System:
- The **RB-CRIS** aims to improve climate risk assessments by providing standardized, high-quality data.

Key Components:
- **Web-based directory:** Lists data sources (e.g., meteorological, geospatial), publicly accessible on the **RBI** website. **Data portal:** Contains processed data in standardized formats, accessible in phases to **regulated entities**.

An initiative of APTI PLUS

In detail

Minimum Support Price (MSP) is a "minimum price" for any crop that the government considers as remunerative for farmers and hence deserving of "support". It is also the price that government agencies pay whenever they procure the particular crop.

The Centre currently fixes MSPs for 23 farm commodities based on recommendations of Commission for Agricultural Costs and Prices (CACP) — 7 cereals (paddy, wheat, maize, bajra, jowar, ragi and barley), 5 pulses (chana, arhar/tur, urad, moong, masur), 7 oilseeds (rapeseed-mustard, groundnut, soyabean, sunflower, sesamum, safflower, nigerseed) and cotton, sugarcane, copra and raw jute.

CACP considers the following costs:
1. A2: covers all cash and in kind expenses incurred by farmers on seeds, fertilisers, chemicals, hired labour, fuel etc.
2. A2 + FL: Actual costs plus an imputed value of unpaid family labour.
3. C2: includes 'A2 + FL' along with revenue foregone on owned land (rent) and fixed capital assets (interest).

SPORTS

India's Bid to host 2036 Olympics

Context

- India has submitted a 'Letter of Intent' to the **International Olympic Committee** for hosting the **2036 Olympic and Paralympic Games**.

Key Facts

- India would become the **4th Asian country** to host the Olympics, after **China, South Korea** and **Japan.**
- **Paris** hosted the latest Olympics; **Los Angeles** (2028) and **Brisbane** (2032) are next.

About the Olympic Games

- A global sporting event held every **four years**, alternating between **Summer** and **Winter Games**.
- **Origin**: Began in ancient Greece (8th century BCE) in **Olympia** in honor of **Zeus.**
- **First modern Olympics**: Held in **Athens, Greece**, in **1896**.
- **Motto**: "Citius, Altius, Fortius" (Latin for "Faster, Higher, Stronger").
- **Rings**: Five rings symbolize the unity of world's continents – **Africa, the Americas, Asia, Europe**, and **Oceania**.
- **Flame**: Lit in **Olympia, Greece**, and carried in a relay to the host city, symbolizing **continuity** and **peace**.

Dwayne Bravo retires, joins KKR as Mentor

Context

- **Dwayne Bravo, West Indies cricketer,** retires from all forms of cricket after a 21-year career.

Details

- Retired from International Cricket in **2021** and played his final match in **2024 CPL**.
- Key member of **West Indies' ICC Champions Trophy (2004)** and **T20 World Cups (2012, 2016)** victories.
- Won **four IPL titles** with **CSK** (2011, 2018, 2021) and as a coach in **2023**. Joins **KKR** as a **mentor**.

International Shooting Sport Federation (ISSF) World Cup Final 2024

Context

- India ranked **9th** in the **ISSF World Cup Final 2024** (Rifle/Pistol/Shotgun) held in **New Delhi.**
- **China** topped with **8 medals.**

Indian Winners

- **Sonam Maskar**: Silver, Women's 10m Air Rifle.
- **Vivaan Kapoor**: Silver, Men's Trap (Shotgun).
- **Akhil Sheoran**: Bronze, 50m Rifle 3 Positions (Men).
- **Anantjeet Singh Naruka**: Bronze, Men's Skeet.

International Shooting Sport Federation (ISSF)

- The **ISSF**, governing body for **Olympic shooting events**, regulates the sport, organizes major tournaments (World Cup, Championships),&manages **Olympic qualification**. **President**: Luciano Rossi (since 2022).
- **Founded**: 1907 (as International Shooting Union, renamed in 1998). **Headquarters**: Munich, Germany.
- **Key Events: Olympic Games**, World Championships, World Cup (Senior & Junior). **Regional Championships** (e.g., European, Pan-American). **Note:** *ISSF events are the only platforms for world record attempts.*

South Asian Football Federation (SAFF) U-17 Championship 2024

Context

- India's **U-17 football team (Blue Colts)** won the **2024 SAFF U-17 Championship** by defeating **Bangladesh 2-0** in the final at **Changlimithang Stadium, Bhutan**. **Tournament Dates**: 20–30 September 2024 (9th edition).

Awards:

- **Player of the Tournament**: Mohammed Arbash (India);
- **Goalkeeper of the Tournament**: Aheibam Suraj Singh (India);
- **Top Scorer**: Sujan Dangol (Nepal) – 4 goals;
- **Fair Play Trophy**: Bhutan.

South Asian Football Federation (SAFF)

- **SAFF** is a regional football association of South Asian nations, a subsidiary of **Asian Football Confederation.**
- **Founded**: 1997 with **6 members** (Bangladesh, India, Maldives, Nepal, Pakistan, Sri Lanka). **Expanded to 7** in **2000** with Bhutan. **Afghanistan** joined in **2005** but left in **2015** to join **Central Asian Football Association**.
- **Current President**: **Kazi Salahuddin** (Bangladesh) since 2016. **Headquarters:** Dhaka, Bangladesh.

Dipa Karmakar: India's First Female Olympic Gymnast

Context

- **Dipa Karmakar**, **India's first female Olympic gymnast,** announced her retirement.

Achievements:

- **2014 Commonwealth Games**: Bronze medal, first Indian female gymnast to win a medal.
- **2016 Rio Olympics**: 4th place in the vault, first Indian female gymnast to compete in the Olympics.

Awards:

- **Padma Shri (Sports)**: 2017,**Arjuna Award (Gymnastics)**: 2015,**Major Dhyan Chand Khel Ratna Award**: 2016.

Chirag Chikkara clinches Gold at U23 World Wrestling Championships

Context

- **Chirag Chikkara** won gold in men's freestyle 57kg, defeating **Abdymalik Karachov** (Kyrgyzstan) 4-3.

Previous Achievements:

- **Ravi Kumar Dahiya**: Silver in 2018 U23 World Championships. **Abhishek Dhaka**: Bronze in 2018.

U23 World Wrestling Championships

- The **U23 World Wrestling Championships** are the Wrestling World Championship for athletes under 23 years old and is organized by United World Wrestling. The **tournament began in 2017.**

Bangladesh tour of India Test Series 2024: India wins 2-Match Series

Series Overview:

- The Bangladesh cricket team, led by **Najmul Hossain Shanto**, toured India in **September-October 2024** for a series of 2 Test matches and 3 T20I matches.
- India won the 2-match Test series **2-0**, under the leadership of **Rohit Sharma**.

Milestones:

- **India's 180th Test Win**, placing them 4th in the list of most Test wins; Australia (414), England (397), and West Indies (183) ahead.
- **R Ashwin** became the Indian bowler with the most Test wickets in Asia, surpassing **Anil Kumble**'s 419 wickets.
- **Virat Kohli** became the fastest to reach **27,000 international runs**, surpassing **Sachin Tendulkar**.

2024-25 Irani Cup: Mumbai wins title for 15th time

Match Overview:

- **Mumbai Cricket team**, captained by **Ajinkya Rahane**, defeated **Rest of India**, captained by
- **Ruturaj Gaikwad**, based on the first-innings lead to win the **2024-25 Irani Cup**.

About the Irani Cup:

- The **Irani Cup** (also known as **IDFC First Bank Irani Trophy**) is an **annual** First-Class Cricket Match between the **Ranji Trophy champions** and a **Rest of India team**. It began in **1960** and became a regular fixture from **1962-63**, named after **Zal R. Irani**, a key BCCI figure.

24th National Para-Swimming Championship

Context

- **Karnataka** emerged as the overall champion with **392 points** in this Para-Swimming Championship.

Event Details:

- Organized by **Paralympic Committee of India (PCI)** and **Goa Paralympic Association**.
- **Champions: Men's Senior Champion**: Mohammed Aasim (Kerala), **Women's Senior Champion**: Sharanya (Karnataka), **Men's Junior Champion**: Ravi Karthik (Andhra Pradesh), **Women's Junior Champion**: Saee Pujair (Maharashtra).

Paralympic Committee of India (PCI)

- The **PCI** selects athletes for the **Paralympic Games** and manages Indian teams at international events.
- Founded in **1992**it aims to promote sports for the differently-abled and train athletes for **State**, **National**, and **international meet**. PCI is affiliated with **International Paralympic Committee** and **Asian Paralympic Committee**. It was granted **public authority status** under the **RTI Act of 2005**.

APPOINTMENTS

Posts	Details
51st Chief Justice of India	**Context** • Justice Sanjiv Khanna was sworn in as the **51st Chief Justice of India**, succeeding

	Justice D.Y. Chandrachud. His term ends on **May 13, 2025**. **Key Facts on CJI Appointment:** • No constitutional procedure exists for CJI appointment. • **Article 124(1):** Establishes the Supreme Court with a Chief Justice. • **Article 124(2):** Judges, including the CJI, are appointed by the President based on convention. • **Landmark Judgments by Justice Sanjiv Khanna:** • Upheld **EVM sanctity**, scrapped **electoral bonds scheme**, supported **Article 370 abrogation**. Granted interim bail to ex-Delhi CM **Arvind Kejriwal**.
Prime Minister of Japan	**Context** • Shigeru Ishiba has been re-elected as **Prime Minister of Japan**. **Details** • He was **elected by Japanese Diet**. The **Japanese Parliament is referred to as Diet**.
New Comptroller and Auditor General (CAG) of India	**Context** • **K Sanjay Murthy** has been appointed as the next **CAG of India.** **Details** • He has been appointed under **Article 148(1)** of the Constitution, succeeding **Girish Chandra Murmu**. He will serve a term of six years or until the age of 65, whichever is earlier.
New Secretary General of Interpol	**Context** • **Valdecy Urquiza**, Brazilian Federal Police Commissioner, has been elected as the new **Secretary General of Interpol** at its 92nd General Assembly in Glasgow, Scotland. **Interpol** • **International Criminal Police Organization (Interpol)**, headquartered in **Lyon, France**, was founded in **1923**, has **195 member countries**, and aims to facilitate international police cooperation and combat transnational crime.
CEO-Professional Golf Tour of India	**Context** • **Amandeep Johl** will assume the role of **Chief Executive Officer (CEO)** of the **Professional Golf Tour of India (PGTI)** in January 2025, succeeding **Uttam Singh Mundy**. **PGTI** • Established in **2006** as the successor to the Indian PGA Golf Tour (1997–2006), the **Tata Steel Professional Golf Tour of India** is a premier men's golf tour in India and has been a member of the **International Federation of PGA Tours** since **2009**.
Tourism Advisor for Thailand	• **Sonu Sood**, renowned actor and philanthropist, has been appointed as the **Brand Ambassador and Honorary Tourism Advisor for Thailand**.
President-FICCI	• **Harsha Vardhan Agarwal** has been announced as the **President-Elect** of the **Federation of Indian Chambers of Commerce and Industry (FICCI)**. **FICCI:** • Established in **1927**, FICCI is India's **largest and oldest apex business organization**, headquartered in **New Delhi**, with a historic role in the country's independence and industrialization.
MCX MD and CEO	**News** • **Praveena Rai** has assumed office as the **Chief Executive Officer (CEO) and Managing Director (MD)** of the **Multi Commodity Exchange of India (MCX)** for a five-year term. **MCX:** • Established in **2003** and headquartered in **Mumbai**, MCX is India's largest **commodity derivatives exchange**, offering contracts in metals, energy, and agricultural products, and playing a key role in the country's financial markets.
Secretary General of the World Agriculture Forum (WAF)	**News** • **Dr. Jacqueline d'Arros Hughes**, outgoing Director General of **ICRISAT**, has been appointed as the **Secretary General of the World Agriculture Forum (WAF)**. **WAF** • WAF, a global platform, brings together governments, agribusinesses, experts and

	development institutions to foster agricultural development through **policy advocacy, trade facilitation, and technology-driven solutions**, aiming for a **resilient, food-secure future**.
WAF Board Member Nomination	• **Suresh Prabhu**, former Union Minister and Rajya Sabha member, has been nominated to the **World Agriculture Forum (WAF) Board**.
New Defence Secretary	• **Rajesh Kumar Singh**, a 1989-batch **IAS officer**, has assumed charge as the **Defence Secretary** at **South Block, New Delhi**, succeeding **Giridhar Aramane**.
Chairman of the Airports Authority of India (AAI)	**News** • **Vipin Kumar**, a 1996-batch **IAS officer**, has officially assumed charge as the **Chairman of the Airports Authority of India (AAI)**.Prior to this, he served as the **Additional Secretary** in the **Department of School Education & Literacy**, Ministry of Education, Government of India. **AAI** • Established in **1995**, AAI manages **133 airports**, including operational &non-operational ones, and provides **air navigation services** across **2.8 million square nautical miles.**
MD of NAFED	**News** • **Deepak Agarwal**has been appointed as the new **Managing Director (MD)** of the **National Agriculture Cooperative Marketing Federation of India Ltd (NAFED)**. **National Agriculture Cooperative Marketing Federation of India Ltd(NAFED)** • Established in **1958**, NAFED works as a cooperative marketing. **Operating under the Ministry of Agriculture and Farmers' Welfare**, NAFED focuses on **price stabilization** for key agricultural commodities.
Director General of ICRISAT	**News** • **Dr. Himanshu Pathak** has been appointed **Director General-designate** of **ICRISAT**. **International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)** • Established in **1972**, ICRISAT focuses on improving **dryland farming** and tackling issues like hunger, malnutrition, and poverty in **Asia** and **Sub-Saharan Africa**. • ICRISAT has made significant innovations, such as mapping the groundnut genome and introducing biofortified crops. ICRISAT has offices in **Africa** and is recognized under the **UN (Privileges and Immunities) Act, 1947.**
DG of the Indian Coast Guard	**News** • **S. Paramesh** has officially assumed charge as the **Director General (DG)** of the **Indian Coast Guard** at its headquarters in **New Delhi**. **ICG** • Established in 1977, operates over 150 ships and 60+ aircraft, headquartered in New Delhi, ensuring India's maritime security.
President of the Indian Newspaper Society (INS)	**News** • **MV Shreyams Kumar** has been elected as the new **President** of **Indian Newspaper Society.** **INS** • Founded in **1939**, INS is the central organization representing the **Press of India**, responsible for authenticating circulation figures& advocating for the **freedom of the press**. **HQ: Rafi Marg, New Delhi**, it comprises owners, proprietors and publishers of print media.

IMPORTANT DAYS

Date	Important Day/News
October 15	International Day of Rural Women
October 16	World Food Day - Focus on global food security
October 17	International Day for the Eradication of Poverty
October 24	United Nations Day - Commemorates the founding of the UN in 1945.

October 27	World Day for Audiovisual Heritage
October 31	National Unity Day - Commemorates Sardar Patel's birth anniversary
November 5	World Cities Day- was established in 2013 by the United Nations General Assembly.
November 8	World Radiology Day: Honours Wilhelm Conrad Röntgen who discovered X-rays in 1895.
November 9	Uttarakhand Foundation Day- 2024 marked the 24th anniversary.
November 10	World Immunization Day: To highlight the critical role vaccination for public health.
November 11	National Education Day. Declared in 2008 to honor the birth anniversary of Maulana Abul Kalam Azad, the first education minister of independent India.
November 11	Armistice Day - Commemorates the end of WWI
November 12	World Pneumonia Day - Awareness for child pneumonia
November 14	Children's Day (India) - Marks Pandit Nehru's birth anniversary
November 15	World Diabetes Day - Awareness on diabetes prevention
November 15	Janjatiya Gaurav Divas: marks the birth anniversary of Birsa Munda
November 16	International Day for Tolerance
November 16	National Press Day commemorates establishment of Press Council of India in 1966.
Third Sunday of November	World Day of Remembrance for Road Traffic Victims (WDR).
9-15 November	International Week of Science and Peace. First observed in 1986 during the International Year of Peace.
14th to 20th November	All India Cooperative Week to recognize the efforts and contributions of cooperative societies in India. 2024 marks the 71st edition.
November 17	International Student's Day
November 17	National Epilepsy Day
November 17	World Day of Remembrance for Road Traffic Victims
November 20	Universal Children's Day
November 20	World Chronic Obstructive Pulmonary Disease Day

AWARDS

Grand Commander of the Order of Niger
Context
- Prime Minister Shri Narendra Modi was conferred the award, "Grand Commander of the Order of Niger".

Details
- PM Modi is the second foreign leader after Queen Elizabeth II (1969) to receive the Honour, recognizing his global leadership and India's transformative role.

The Fable- 38th Leeds International Film Festival
Context
- Manoj Bajpayee's The Fable won Best Film at 38th Leeds Int. Film Festival.

Details
- Directed by Raam Reddy, the film won the Constellation Feature Film Competition for groundbreaking cinema. The Leeds International Film Festival (LIFF), founded in 1987, is the largest film festival in England outside London, held annually in November at various venues in Leeds.

Satyajit Ray Lifetime Achievement Award
Context
- Veteran Australian filmmaker Phillip Noyce, was honored with the prestigious Satyajit Ray Lifetime Achievement Award at the 55th International Film Festival of India (IFFI).

Details
- IFFI: The award, first instituted in 1999 at the 30th IFFI, was renamed to IFFI - Satyajit Ray Lifetime Achievement Award in 2021, in recognition of Satyajit Ray's centenary and contribution to global cinema.

IUCN's Conservation Leadership Award
Context
- Bibhab Kumar Talukdar awarded the Harry Messel Award for Conservation Leadership by the Species Survival Commission (SSC) of IUCN in Abu Dhabi.

Details
- Recognition for his leadership in Asian rhino conservation, especially through Indian Rhino Vision 2020 and Asian Rhino States meetings. Founder of Aaranyak (1989), a leading biodiversity organization in Assam. Talukdar was involved in

Millennium Ecosystem Assessment for the Eastern Himalayas (2002-2004).

- International Union for Conservation of Nature: Founded in 1948, headquartered in Switzerland, focuses on biodiversity conservation, sustainable resource management, and ecosystem restoration. IUCN programs: Species Survival Commission (SSC): Focuses on conservation of threatened species; World Commission on Protected Areas (WCPA): Promotes protected areas worldwide, Nature-Based Solutions: Asks to use nature to solve global challenges.

Global Anti-Racism Championship Award 2024

Context

- Urmila Chaudhary (Nepal) awarded the Global Anti-Racism Championship Award 2024.

Details

- GARC Award (est. 2023) honours leaders combating systemic racism and discrimination. Nomination by U.S. Embassies/Consulates worldwide.

5th National Water Awards 2023

Context

- Organized by the Dept. of Water Resources, River Development, and Ganga Rejuvenation under the Ministry of Jal Shakti.

Details

- The Award recognizes efforts in water conservation and management across India.
- Best State: Odisha (1st), Uttar Pradesh (2nd), Gujarat & Puducherry (joint 3rd).
- Award Categories: 9 categories including districts, villages, urban bodies, institutions, and civil society organizations.

Booker Prize, 2024

Context

- The Booker Prize for this year was awarded to Samantha Harvey for her book 'Orbital'.

Details

- The novel follows a single day in the lives of six astronauts from different countries aboard the International Space Station, experiencing 16 sunrises and sunsets within 24 hours.

About Padma Awards

About:

- The Padma Awards are one of the highest civilian honours of India announced annually on the eve of Republic Day.
- The Padma Awards are conferred on the recommendations made by the Padma Awards Committee, which is constituted by the Prime Minister every year.
- The nomination process is open to the public. Even self-nomination can be made.

What are the categories in the award?

- Padma Awards, which were instituted in the year 1954, is announced every year on the occasion of Republic Day except for brief interruption(s) during the years 1978 and 1979 and 1993 to 1997.
- The award is given in three categories, namely,
  - Padma Vibhushan for exceptional and distinguished service;
  - Padma Bhushan for distinguished service of a high order; and
  - Padma Shri for distinguished service.

In how many categories it is given?

- The award seeks to recognize works of distinction and is given for distinguished and exceptional achievements/service in all fields of activities/disciplines. An illustrative list of the fields is as under:
  - Art, Social work, Public Affairs, Science & Engineering, Trade & Industry, Medicine, Civil Service, Sports, other of Human Rights, Wild Life protection/conservation etc.

Can it be conferred posthumously?

- The award is normally not conferred posthumously. However, in highly deserving cases, the Government could consider giving an award posthumously.

What are the conditions to confer the award?

- A higher category of Padma award can be conferred on a person only where a period of at least five years has elapsed since conferment of the earlier Padma award. However, in highly deserving cases, a relaxation can be made by the Awards Committee.

Who decides the nomination?

- All nominations received for Padma Awards are placed before the Padma Awards Committee, which is constituted by the Prime Minister every year.
- The Padma Awards Committee is headed by the Cabinet Secretary and includes Home Secretary, Secretary to the President and four to six eminent persons as members.
- The recommendations of the committee are submitted to the Prime Minister and the President of India for approval.

Who presents the award?

- The awards are presented by the President of India usually in the month of March/April every year where The total number of awards to be given in a year (excluding posthumous awards and to NRI/foreigners/OCIs) should not be more than 120.
- The award does not amount to a title and cannot be used as a suffix or prefix to the awardees' name

BOOKS & AUTHORS [CURRENT]

BOOK	AUTHOR
Why Bharat Matters	Dr. S. Jaishankar
'Maa-Mother'	Law and Justice Minister Arjun Ram Meghwal
"Friends – India's Closest Strategic 'Strategic Conundrums: Reshaping India's Foreign Policy,'	Rajiv Sikri
'We Also Make Policy'	Subhash Chandra Garg
Chronicle of an Hour and a Half	Saharu Nusaiba Kannanari
The Nutmeg's Curse: Parables for a Planet in Crisis	Amitav Ghosh
'Orbital'	Samantha Harvey
The Mahabharata; The Bhagvata Gita for Millenials; The Holy Vedas; Indian Railways: The Weaving of a National Tapestry; Ideas for India: Faster, Higher, Stronger; Sarama and Her Children: The Dog in Indian Myth; INKED IN INDIA: Fountain Pens and a Story of Make and Unmake; DEVI FOR MILLENNIALS	Books written by Bibek Debroy (Indian economist who recently passed away)
War	Investigative journalist Bob Woodward
India That is Bharat: An Introduction to the Constitutional Debates	P. Rajeeve

BOOKS & AUTHORS [STATIC GK]

Book	Author	Publication Year
The Life Divine	Arvind Ghosh	1944
Savitri	Arvind Ghosh	1940
New Lamps for Old	Arvind Ghosh	1893
Bhavani Mandir	Arvind Ghosh	1905
White	Rabindranath Tagore	1910
Ghar Baire	Rabindranath Tagore	1916
India: A Search	Jawaharlal Nehru	1946
Essays on Indian Economics	Mahadev Govind Ranade	1906
Rise of the Maratha Power	Mahadev Govind Ranade	1900
Durgesh Nandini	Bankim Chandra Chatterjee	1865
Bang Darshan	Bankim Chandra Chatterjee	1872
India in Transition	M. N. Rai	1922
Economic History of British India	R. C. Dutt	1893
Indian Muslim	Hunter	1871
Gandevata	Tarashankar Bandyopadhyay	1978
Philosophy of the Bomb	Bhagwati Charan Bohra	1929
Why Socialism	Jayaprakash Narayan	1936
Gandhi vs Lenin	S.A. Dange	1921
Problem of the East	Lord Curzon	1894
Blue Mirror	Deenbandhu Mitra	1860
India Today	R. P. Dutt	1940
Thakurmar Jhuli	D. M. Mazumdar	1907
Indian Unrest	Valentine Shirol	1910
Oriental and Western	Swami Vivekananda	1938
Essay Series	Vishnukrishna Chiplunkar	1881
Gokarunanidhi	Swami Dayanand Saraswati	1881
Letters from Russia	Rabindranath Tagore	1960

Wither India	Rabindranath Tagore	1933
Soviet Asia	Jawaharlal Nehru	1949
Pather Dabi	Abanindranath Tagore	1926
History of Hindu Chemistry	P. C. Rai	1902
Peasantry of Bengal	R. C. Dutt	-

STATIC GK

Largest air force station in Asia
- Hindon Air Force Station near Hindon River in Uttar Pradesh.

District in West Bengal with highest literacy rate. (2011 census)
- Purba Medinipur with highest literacy rate at 87.66%.

Largest known star in Milky Way Galaxy
- UY Scuti

First Chief Minister of West Bengal after its formation as a state in 1947
- Prafulla Chandra Ghosh

Author of "The Hungry Tide", a novel set in the Sundarbans
- Amitav Ghosh

First Governor of West Bengal after its formation as a state
- Chakravarthi Rajagopalachari

Event associated with the famous "Watergate Scandal"
- Nixon's resignations

Author of the book "The Alchemist"
- Paulo Coelho

"Pearl of Africa"
- Winston Churchill called UGANDA 'the Pearl of Africa' for its beauty, abundant wildlife and diversity.

"One Belt One Road" Initiative
- Spearheaded by China

'City of Canals'
- Venice

Great Barrier Reef
- Australia

'Blue Mosque'
- Istanbul

'Christ the Redeemer' statue
- Mount Corcovado, Rio de Janeiro, Brazil.

Suez Canal connects
- Mediterranean Sea to the Red Sea

'Stonehenge' Monument
- Prehistoric megalithic structure on Salisbury Plain in Wiltshire, England

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Apical Rooted Cutting (ARC) Technology
- Low-cost, low-tech method for producing potato seed tubers.

Matir Shristi Scheme Launched in 2020
- Aims to make fallow land commercially useful in 6 districts through horticulture, fishery & animal husbandry. Districts—Bankura, West Midnapore, Jhargram, West Burdwan, Purulia, Birbhum.

The second highest peak of West Bengal
- Phalut - a 3,600-meter peak in the Singalila Ridge, part of the Himalayas, located at the border of West Bengal, Sikkim, and Nepal, within Singalila National Park.

Linguistic Minorities in Bengal
- People speaking six languages viz. **Hindi, Urdu, Nepali, Oriya, Santhali, Telegu and Gurumukhi** have been declared as Linguistic Minorities in the State.

Aikyashree
- West Bengal State Scholarships for Minority Students.

Largest desert in the world
- Antarctic Desert

Largest coffee-producing state in India
- Karnataka- accounted for 72.5% of the country's coffee production in 2023:

Natural Heritage Animal of India
- Elephant

Largest freshwater lake in India
- Wular Lake

Committee that recommended the Panchayati Raj System in India
- Balwant Rai Mehta Committee

First Indian woman to win an Olympic medal
- Karnam Malleswari

Largest producer of coal in India
- Jharkhand

Author of the book *Poverty and Un-British Rule in India*
- Dadabhai Naoroji

Biological magnification refers to
- Accumulation of pollutants in the food chain

Eutrophication in water bodies is mainly caused by:
- Excessive nutrients

Bergmann's Rule
- Larger body sizes in colder climates; smaller in warmer climates.

Allen's Rule
- Animals in cold climates have shorter appendages; warm climates, longer appendages.

Allee Effect
- A phenomenon where a population's growth rate decreases as the population size gets smaller.

Radioactive element is used in smoke detectors
- Americium-241

Purpose of the Marginal Standing Facility (MSF)
- To provide overnight borrowing facility to banks in case of liquidity shortage.

Beta cells (β-cells)
- Specialized endocrine cells located within the pancreatic islets of Langerhans responsible for the production and release of insulin and amylin.

Coronagraph
- A specialized instrument designed to block out the light of the sun so that researchers can glimpse the burning star's hot, thin, outermost layer, called the corona.

Mangrove cover in India
- As per the Indian State Forest Report 2021, India's mangrove cover is 4,992 sq km (0.15% of the total area), with West Bengal (42.45%), Gujarat (23.66%), and A&N Islands (12.39%) having the highest cover percentages.

The monomer of natural rubber is
- Isoprene

Isotope of Uranium is used in nuclear reactors
- U-235

In a galvanic cell, the anode is the site of
- Oxidation

Enzyme responsible for unwinding of DNA during replication
- Helicase

Function of Barr bodies
- To regulate the number of X-linked gene products that are transcribed in females.

First atomic power plant in India
- Tarapur Atomic Power station in Tarapur, Maharashtra.

India's first privately built rocket
- Vikram-S launched in 2022 by Skyroot Aerospace from Sriharikota.

Only active volcano in India
- Barren Island

Longest national highway in India
- Stretches from Srinagar in the north to Kanyakumari in the south.

First Buddhist council in India
- Rajgir, Bihar (around 483 BCE, after the death of Lord Buddha). in During the reign of the ruler Ajatashatru. President Mahakasyapa.

Headquarters of the International Solar Alliance
- Gurugram (Haryana)

Largest Marine National Park in India
- Marine National Park in Gulf of Kutch

First recipients of the Bharat Ratna
- C. Rajagopalachari, Sarvepalli Radhakrishnan and C. V. Raman in 1954.

World's largest artificial lake and reservoir by volume.
- Lake Kariba along the border between Zambia & Zimbabwe.

High Altitude Sickness (AMS):
- A condition where the body struggles to acclimatize to altitudes above 8,000 feet, leading to hypoxia (shortage of oxygen in the body's tissues) due to reduced air pressure and oxygen levels.

Hallmark Unique Identification (HUID) Number
- Six-digit alphanumeric code is mandatory only for gold and silver jewellery, excluding Kundan, Polki, and Jadau.

World's highest arch bridge and rail bridge
- Chenab Rail Bridge in Jammu and Kashmir at a height of 1,178 ft above the river.

Mercantilism
- Adam Smith's Economic policy that is designed to maximize the exports and minimize the imports for an economy.

Radio Spectrum
- Electromagnetic spectrum that extends from frequencies below 1 Hz up to around 3000 GHz or 3 THz.

Most abundant metal in the Earth's crust

- Aluminium making up around 8.2% of it.

XaaS

- XaaS is the delivery of everything or anything as a service. XaaS examples: **SaaS** (Google Apps, Office 365), **PaaS** (cloud tools), **IaaS** (IT infrastructure on subscription).

Nurdles

- Nurdles are small plastic pellets made from poly-ethylene, polypropylene, polystyrene, and polyvinyl chloride, used to create various plastic products.

India's Auto Component Industry Surplus

- India's auto components sector has always imported more than it exported, leading to a trade deficit. For the first time ever, the industry saw a significant $700 million trade surplus in FY22.

Electrophoresis

- A laboratory technique used to separate DNA, RNA or protein molecules based on their size and electrical charge.

Epigenetics

- A field of study focused on changes in DNA that do not involve alterations to the underlying sequence.

Metaverse

- A real-time, three-dimensional world that is accessible through Virtual Reality (VR) head-mounted display.

Most recent state formed in India

- Telangana became the 29th state on June 2, 2014. It was created by reorganizing the state of Andhra Pradesh.

Cotton Gin

- A machine that separates cotton fibers from cotton seeds. It was invented by Eli Whitney in 1793 and patented in 1794.

BrahMos

- World's fastest and most formidable anti-ship cruise missile.

Fastest supercomputer in India

- As of 2023, it is **AIRAWAT, which is ranked 75th in the world**. Speed: **13,170 teraflops** (Rpeak) Location: Centre for Development of Advanced Computing (C-DAC) in Pune.

Bakelite

- A **thermosetting plastic** made from phenol formaldehyde resin; used to manufacture electrical switches, food items, toys, jewelry, guns, insulators, and computer discs, among other things.

Sarin (GB), Soman (GD), Tabun (GA)

- **Examples of Nerve Agents**: Highly poisonous chemicals that work by preventing the nervous system from working properly.

Smallest tectonic plate on Earth

- Juan de Fuca plate located in the Pacific Northwest, beneath the North American plate.

Cell-free DNA

- DNA that circulates freely in the bloodstream or other body fluids, outside of cells.

Cryogenics

- Study of the production and behavior of materials at extremely low temperatures (below -150 degree centigrade) to lift and place the heavier objects in space.

String of Pearls

- A geopolitical theory that refers to China's efforts to build a network of military and commercial bases and ports in the Indian Ocean region.

First hydroelectric power plant in India

- Sidrapong Hydroelectric Power Station, installed in 1897 in Darjeeling, West Bengal.

First Indian Swimmer to cross the English Channel

- Mihir Sen was the first Indian to swim across the English Channel, from Dover to Calais, in 1958.

Organisms with more than 1 Eye

- Jumping Spider, Chiton, Horseshe Crab, Fruitfly, Scallops, Box Jellyfish, Spiders, Starfish.

Entity responsible for coordinating the Census of India

- Registrar General of India

State bird of West Bengal

- White-breasted kingfisher (*Halcyon smyrnensis*)

Insectivorous plants

- Venus flytrap, Pitcher plant, Sundew, Butterwort, Bladderwort, Cobra lily, Trapdoor spiderwort, Nepenthes, Drosera, Sarracenia.

State with highest number of GI-tagged products in the country

- As of March 31, 2024, Uttar Pradesh has the most

Geographical Indication (GI) tags in India with 69 products.

First woman to win a Nobel Prize in India
- Mother Teresa

First city in India to establish a municipal corporation
- Madras

Most recent Commonwealth Games
- The 22nd edition of the Commonwealth Games was held in Birmingham, England in 2022.

World's longest river cruise
- MV Ganga Vilas inaugurated in 2023

World's first malaria vaccine program for children launched by
- Cameroon in 2024

First Indian to win the Ramon Magsaysay Award
- Vinoba Bhave in the year 1958 under the category of Community Leadership.

Bharat Gaurav Scheme
- In this, the Indian Railway Catering and Tourism Corporation (IRCTC) promotes tourism in India through rail-based tourism.

First country to recognize Bitcoin as legal tender
- El Salvadortook this pioneering step in 2021

First Indian state to enact the 'Right to Health Act 2022
- Rajasthan

Fastest player to score 10,000 runs in One Day Internationals
- Virat Kohliin just 213 matches and 205 innings

Fastest century in One-Day International (ODI) cricket
- 149 runs off 31 balls, scored by **AB de Villiers of South Africa against the West Indies in Johannesburg in 2015.**

First Indian cricketer to cross 2000 T20I runs
- Mithali Raj

Part of the human brain that controls the voluntary movements of the body
- Cerebellum

pH value of pure water at 25°C
- 7

Most stable isotope of hydrogen
- Tritium (3H) is the most stable radioisotope of hydrogen, meaning it's the least radioactive of all hydrogen's radioactive isotopes. With a half-life of 12.32 years it is produced naturally by cosmic rays in the upper atmosphere and through nuclear weapons tests.

Most reactive element in the periodic table
- Fluorine

Network Solid
- A network solid is a solid where all the atoms are covalently bonded in a continuous network. Diamond, graphite, and silicon are non-metals that exist as network solids.

Most electronegative element on the periodic table
- Fluorine (F) with an electronegativity value of 3.98. This means that fluorine attracts electrons better than any other element.

CURRENT ONE LINER

Amchang Wildlife Sanctuary
- Located in the eastern fringe of **Guwahati city, Assam.**

Wind Energy in India
- World's **4th-largest in wind energy**, with 47 GW contributing to its total 200 GW renewable energy capacity.

Microplastics
- Small pieces of plastic that are **less than 5 millimeters in size.**

Horn of Africa
- Composed of **Somalia, Djibouti, Ethiopia and Eritrea.**

X-Rays
- Discovered by **Wilhelm Conrad Roentgen**, have wavelengths of 0.01 to 10 nanometers and frequencies between 3×10^{16} Hz and 3×10^{19} Hz, earning Roentgen the Nobel Prize in Physics in 1901.

Balfour Declaration (1917)
- A British statement **supporting the establishment of a "national home for the Jewish people"** in

Palestine, then part of the Ottoman Empire.

'Bob' Khathing Museum
- Inaugurated at **Tawang in Arunachal Pradesh.**

"Gibraltar of the East"
- **Raigad Fort** is referred to as the "Gibraltar of the East", due to its strategic location in the **Raigad district of Maharashtra** and it was **captured by Shivaji Maharaj in 1656** from the Mores dynasty & was crowned as Chhatrapati in this Fort.

Coral Triangle
- Spanning across **Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands and Timor-Leste** it is a biodiversity hotspot with **76% of the world's reef-building corals.**

Stratospheric Aerosol Injection (SAI)
- A proposed **solar geoengineering method to reduce global warming** by injecting aerosols into the stratosphere, creating a cooling effect through global dimming and increased albedo.

Smart Insulin
- Smart Insulin (NNC2215) drug activates in response to high blood sugar. It uses a **glucoside molecule** to remain inactive during low blood sugar, & activates when glucose levels rise, helping **regulate blood sugar automatically.**

Carbon credits
- Permits allowing the emission of a specific amount of carbon dioxide or other greenhouse gases, typically one ton per credit. They are also called carbon allowances.

Coeliac Disease
- A **condition in which the immune system reacts severely to gluten.**

Dissolved Organic Carbon (DOC)
- Organic carbon that can pass through a filter with a pore size of 0.22–0.7 micrometers.

International Energy Agency (IEA)
- Established in 1974, autonomous organization under Organisation for Economic Cooperation and Development (OECD); headquarter is located in Paris, France; publishes World Energy Outlook Report, Oil Market Report, Net Zero Roadmap.

Bidar Fort built by
- Sultan Ala-Ud Din Bahman

GST on ethanol
- 5%

Nobel Peace Prize 2024
- To **Nihon Hidankyo,** an organisation representing Japanese atomic bomb survivors.

The monomer of natural rubber is
- Isoprene

Isotope of Uranium is used in nuclear reactors
- U-235

In a galvanic cell, the anode is the site of
- Oxidation

India's largest trading partner
- China is India's largest trading partner, with $118.4 billion in two-way trade in 2023-24.

India the biggest exporter of
- Petroleum products as of 2023 worth USD 15.5 billion.

Lagrange Points
- Here, the pull of gravity from the Earth cancels out the pull of gravity from the Sun.

Graphene
- Allotrope of carbon; world's thinnest, strongest and most conductive material of both electricity and heat; 200 times stronger than steel but six times lighter.

Intergovernmental Panel on Climate Change (IPCC)
- Established by World Meteorological Organization and the United Nations Environment Programme in 1988; secretariat in Geneva, Switzerland.

Huntington's Disease
- Huntington's disease is a rare inherited disorder associated with the progressive loss of brain and muscle function.

New member of Shanghai Cooperation Organization (SCO)
- In 2024 Belarus became the 10th member of Shanghai Cooperation Organization (SCO).

National Space Day
- On 23rd Aug 2023, ISRO landed Chandrayaan-3's lander and rover on Moon. Theme of the first National Space Day celebrated in 2024 Touching Lives while Touching the Moon: India's Space Saga.
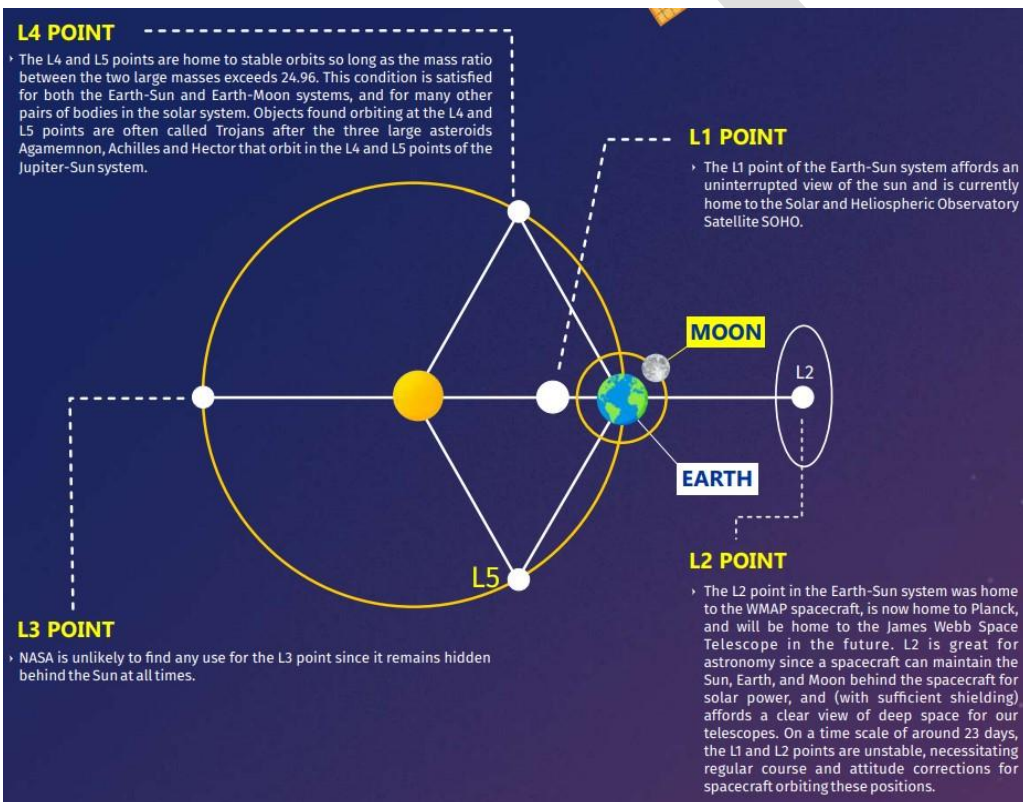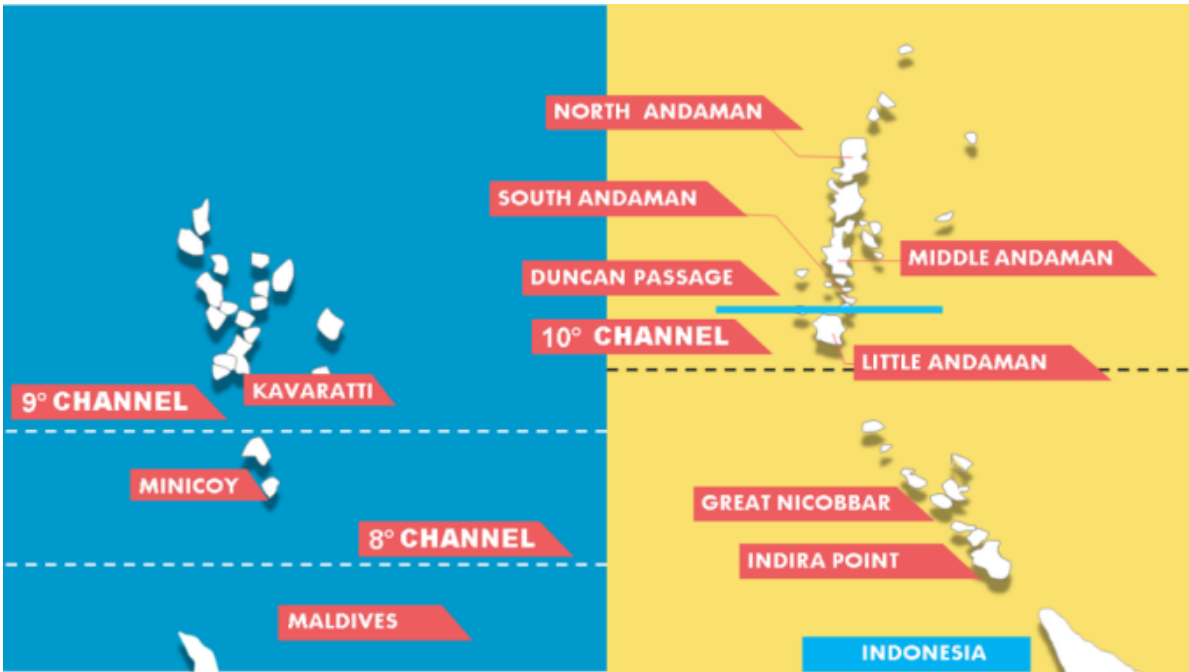
Biochar

- Lightweight black residue, consisting of carbon and ashes, that remains after the pyrolysis of biomass, and it is a form of charcoal.

Largest producer of sponge iron

India since 2023 (20% of the world's total). Sponge iron/ Direct Reduced Iron, is metallic iron produced by reducing iron ore with a reducing gas.

Eight Degree Channel

- Separates the Lakshadweep Islands (north) from the Maldives (south).

L4 POINT
- The L4 and L5 points are home to stable orbits so long as the mass ratio between the two large masses exceeds 24.96. This condition is satisfied for both the Earth-Sun and Earth-Moon systems, and for many other pairs of bodies in the solar system. Objects found orbiting at the L4 and L5 points are often called Trojans after the three large asteroids Agamemnon, Achilles and Hector that orbit in the L4 and L5 points of the Jupiter-Sun system.

L1 POINT
- The L1 point of the Earth-Sun system affords an uninterrupted view of the sun and is currently home to the Solar and Heliospheric Observatory Satellite SOHO.

L3 POINT
- NASA is unlikely to find any use for the L3 point since it remains hidden behind the Sun at all times.

L2 POINT
- The L2 point in the Earth-Sun system was home to the WMAP spacecraft, is now home to Planck, and will be home to the James Webb Space Telescope in the future. L2 is great for astronomy since a spacecraft can maintain the Sun, Earth, and Moon behind the spacecraft for solar power, and (with sufficient shielding) affords a clear view of deep space for our telescopes. On a time scale of around 23 days, the L1 and L2 points are unstable, necessitating regular course and attitude corrections for spacecraft orbiting these positions.

OPSC MCQ

PRACTICE QUESTIONS [CURRENT]

Q1. Sanjay Murthy has been appointed as the next Comptroller and Auditor General (CAG) of India. Under which constitutional article is the CAG of India appointed?
a) Article 148
b) Article 149
c) Article 150
d) Article 151

Q2. Naseem-Al-Bahr is a bilateral naval exercise between India and which Gulf Cooperation Council (GCC) country?
a) Saudi Arabia
b) Qatar
c) Oman
d) United Arab Emirates

Q3. The 2024 Adaptation Gap Report was released by which organization?
a) World Bank
b) United Nations Environment Programme (UNEP)
c) United Nations Framework Convention on Climate Change (UNFCCC)
d) Intergovernmental Panel on Climate Change (IPCC)

Q4. The 4B Movement is primarily focused on rejecting which of the following?
a) Corporate Influence
b) Patriarchy and misogyny
c) Social media influence
d) Economic inequality

Q5. Who is the author of the book "Devi for Millennials"?
a) Ramesh Menon
b) Bibek Debroy
c) Devdutt Pattanaik
d) Amish Tripathi

Q6. Which of the following is NOT a part of the Core Industries of the Index of Industrial Production (IIP)?
a) Fertilizers
b) Natural Gas
c) Textiles
d) Cement

Q7. Which of the following is the busiest land port in South Asia?
a) Petrapole-Benapole Land Port
b) Attari-Wagah Border
c) Raxaul-Birgunj Border
d) Moreh-Tamu Border

Q8. Who is the current Director General (DG) of the Indian Coast Guard?
a) K.N. Satyanand
b) S. Paramesh
c) Rajendra Singh
d) Bimal Desai

Q9. Which of the following dates is observed as United Nations Day?
a) October 1
b) October 10
c) October 24
d) November 5

Q10. Which committee proposed the creation of the Monetary Policy Committee (MPC) of the Reserve Bank of India?
a) Narasimham Committee
b) Urjit Patel Committee
c) Kelkar Committee
d) Raghuram Rajan Committee

Q11. When was the Defence Acquisition Council (DAC) formed?
a) 1999
b) 2001
c) 2003
d) 2005

Q12. Which of the following countries is NOT currently a member of the South Asian Football Federation (SAFF)?
a) Bhutan
b) Sri Lanka
c) Nepal
d) Myanmar

Q13. At which of the following Lagrange points does the pull of gravity from the Earth cancel out the pull of gravity from the Sun?
a) L1
b) L2
c) L3
d) L4

Q14. Which is India's first privately built rocket?
a) GSLV Mk III
b) Polar Satellite Launch Vehicle (PSLV)

c) Vikram-S
d) Chandrayaan-1

Q15. Sarin (GB), Soman (GD), and Tabun (GA) are examples of which of the following?
a) Biological agents
b) Nerve agents
c) Radiological agents
d) Chemical warfare agents

PRACTICE QUESTIONS [STATIC]

Q1. The Deocha-Pachami coal block, one of the largest coal blocks in India and the world, is located in which coalfield?
a) Singrauli Coalfield
b) Raniganj Coalfield
c) Jharia Coalfield
d) Birbhum Coalfield

Q2. Lakshisaal, Danaguri, Kabirajsaal and Karpurkranti are varieties of what?
a) Wheat
b) Rice
c) Barley
d) Millets

Q3. In which year was the Railway Budget merged with the General Budget?
a) 2015
b) 2016
c) 2017
d) 2018

Q4. Operation Pawan, launched in 1987, was associated with which of the following?
a) Liberation of Goa
b) Kargil War
c) Peacekeeping operations in Sri Lanka
d) Counter-insurgency in the Northeast

Q5. Which of the following is the world's largest artificial lake and reservoir by volume?
a) Lake Volta
b) Lake Kariba
c) Lake Nasser
d) Lake Mead

Q6. The book India: A Search was authored by:
a) Mahatma Gandhi
b) Subhas Chandra Bose
c) Jawaharlal Nehru
d) Rabindranath Tagore

Q7. What is a Cotton Gin?
a) A machine that separates cotton fibres from cotton seeds
b) A tool used for weaving cotton fabric
c) A method of growing cotton
d) A machine used for spinning cotton into yarn

Q8. The principle of conservation of mass was proposed by:
a) Dmitri Mendeleev
b) Antoine Lavoisier
c) John Dalton
d) Marie Curie

Q9. The edible outer layer of grains like wheat, millets, and rye, rich in dietary fiber and bioactive substances, is called:
a) Endosperm
b) Germ
c) Bran
d) Husk

Q10. The monomer of natural rubber is:
a) Butadiene
b) Isoprene
c) Styrene
d) Ethylene

Q11. Which of the following is a characteristic of heavy metals?
a) Atomic number greater than 10 and atomic density over 2 g/cm³
b) Atomic number greater than 20 and atomic density over 5 g/cm³
c) Atomic number greater than 30 and atomic density over 3 g/cm³
d) Atomic number greater than 50 and atomic density over 4 g/cm³

Q12. Beta cells (β-cells) are responsible for the production of which of the following?
a) Insulin and amylin
b) Glucagon and adrenaline
c) Thyroid hormones
d) Cortisol and testosterone

Q13. What does the Piezoelectric Effect convert?
a) Electricity into mechanical pressure
b) Mechanical pressure into electricity
c) Sound waves into electricity
d) Heat into mechanical energy

Q14. What is India's largest and oldest apex business organization?

a) Federation of Indian Chambers of Commerce and Industry (FICCI)

b) Associated Chambers of Commerce and Industry of India (ASSOCHAM)

c) Confederation of Indian Industry (CII)

d) National Association of Software and Service Companies (NASSCOM)

Q15. The Ten Degree Channel separates which of the following islands in the Bay of Bengal?

a) Andaman Islands from the Nicobar Islands

b) Andaman Islands from the Sumatra Islands

c) Nicobar Islands from the Malacca Strait

d) Lakshadweep Islands from the Maldives

ANSWERS [PRACTICE SET – CURRENT]

1. Answer: a)

Explanation

- The **Comptroller and Auditor General (CAG)** of India is appointed under **Article 148** of the **Indian Constitution**.
- This article outlines the appointment, tenure, and powers of the CAG, who is responsible for auditing government accounts and ensuring transparency in the use of public funds.

2. Answer: c)

Explanation

- **Naseem-Al-Bahr** is a bilateral naval exercise between **India and Oman**, initiated in **1993**. Oman was the first **GCC country** to conduct joint exercises with India, strengthening defense cooperation between the two nations.

3. Answer: b)

Explanation

- The **Adaptation Gap Report 2024**, titled "**Come Hell and High Water,**" was released by the **United Nations Environment Programme (UNEP)**. It assesses global progress in **climate adaptation** and highlights the gap between current efforts and the necessary actions to address climate risks.

4. Answer: b)

Explanation

- Post-Trump's victory, the **4B Movement** gained momentum in the US, protesting patriarchy and misogyny by rejecting sex and marriage with men. Originating in South Korea after the **MeToo** and **Escape the Corset** movements, the **4B** (Four Nos) stands for **No dating, sex, marriage, or children with men**. It has since expanded into **6B4T**, which includes rejecting misogynistic firms, fandom culture, and male-gaze beauty standards.

5. Answer: b)

Explanation

- Bibek Debroy, an eminent Indian economist who recently passed away, was also a prolific author and translator. He contributed significantly to Indian literature and mythology with works such as The Mahabharata, The Bhagavad Gita for Millennials, The Holy Vedas, Indian Railways: The Weaving of a National Tapestry, Ideas for India: Faster, Higher, Stronger, Sarama and Her Children: The Dog in Indian Myth, INKED IN INDIA: Fountain Pens and a Story of Make and Unmake, and Devi for Millennials.

6. Answer: c)

Explanation:

- The eight Core Industries contributing to 40.27% of the IIP are Electricity, Steel, Refinery Products, Crude Oil, Coal, Natural Gas, Cement, and Fertilizers. Textiles is not included in this list. These industries are critical for the industrial performance and economic growth of the country.

7. Answer: a)

Explanation:

- **Petrapole, West Bengal** is the largest and busiest land port in South Asia, handling about **70% of India-Bangladesh land trade**.

8. Answer: b)

Explanation:

- S. Paramesh has officially assumed charge as the Director General (DG) of the Indian Coast Guard, headquartered in New Delhi. The Indian Coast Guard, established in 1977, ensures India's maritime security with over 150 ships and 60+ aircraft.

9. Answer: c)

Explanation:

- United Nations Day is observed on October 24 to commemorate the founding of the United Nations in 1945. It highlights the achievements of the UN and promotes its goals of peace, security, and cooperation among nations.

10. Answer: b)

Explanation:

- The Urjit Patel Committee proposed the creation of the Monetary Policy Committee (MPC) to frame the monetary policy of India. This committee's recommendations led to the formation of the MPC, which started functioning in October 2016.

11. Answer: b)

Explanation:

- The Defence Acquisition Council (DAC) was formed in 2001 after the Kargil war to streamline and expedite the process of acquiring defense equipment and technology for the Indian armed forces.

12. Answer: d)

Explanation:

- The South Asian Football Federation (SAFF) was founded in 1997 with 6 members: Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka. Bhutan joined in 2000, bringing the total to 7 members. Myanmar has never been a member of the South Asian Football Federation, as it is part of Southeast Asia, not South Asia. Therefore, Myanmar is not a member of SAFF.

13. Answer: a)

Explanation:

- At the L1 point, the gravitational forces of the Earth and the Sun cancel out, allowing a stable position for objects like satellites. It lies on the line connecting the Earth and the Sun.

14. Answer: c)

Explanation:

- Vikram-S is India's first privately built rocket, launched by Skyroot Aerospace in 2022. It marked a significant step for India's private space industry.

15. Answer: b)

Explanation:

- Sarin (GB), Soman (GD), and Tabun (GA) are examples of nerve agents. These are highly poisonous chemicals used in chemical warfare that disrupt the functioning of the nervous system by inhibiting acetylcholinesterase, leading to a build up of

acetylcholine and causing paralysis or death.

ANSWERS [PRACTICE SET – STATIC]

1. Answer: d)

Explanation
- The Deocha-Pachami coal block is located in the Birbhum Coalfield in West Bengal. It is the largest coal block in India and one of the largest in the world.

2. Answer: b)

Explanation
- Lakshisaal, Danaguri, Kabirajsaal, and Karpurkranti are rare rice varieties known for their distinct taste, texture, and cultivation. These varieties are conserved through community participation by the West Bengal Biodiversity Board (WBBB).

3. Answer: c)

Explanation:
- The Railway Budget was merged with the General Budget in 2017, marking the end of the practice that had been in place since 1924.

4. Answer: c)

Explanation:
- Operation Pawan was conducted in 1987 by the Indian Peace Keeping Force (IPKF) in Sri Lanka. It aimed to take control of Jaffna from the Liberation Tigers of Tamil Eelam (LTTE) as part of the Indo-Sri Lankan Accord.

5. Answer: b)

Explanation:
- Lake Kariba, located along the border between Zambia and Zimbabwe, is the world's largest artificial lake and reservoir by volume. It has a capacity of approximately 185 cubic kilometers and was created in 1958 with the construction of the Kariba Dam on the Zambezi River.

6. Answer: c)

Explanation:
- The book India: A Search was authored by Jawaharlal Nehru in 1946. It encapsulates his vision for an independent India and critiques colonial rule.

7. Answer: a)

Explanation:
- Cotton Gin was invented by Eli Whitney in 1793. It is a machine that separates cotton fibers from cotton seeds very quickly.

8. Answer: b)

Explanation:
- Antoine Lavoisier, a French chemist, proposed the principle of conservation of mass, which states that mass is neither created nor destroyed in a chemical reaction.

9. Answer: c)

Explanation:
- Bran is the outer layer of grains, rich in fiber and bioactive substances. Removal of bran reduces protein, fiber, fat, and minerals, while increasing carbohydrates and amylose.

10. Answer: b)

Explanation:
- The monomer of natural rubber is Isoprene, which polymerizes to form polyisoprene, the main component of natural rubber.

11. Answer: b)

Explanation:
- Heavy metals are naturally occurring elements with an atomic number greater than 20 and an atomic density over 5 g/cm^3. They exhibit metal-like characteristics and include elements such as arsenic, cadmium, chromium, copper, lead, mercury, and uranium.

12. Answer: a)

Explanation:
- Beta cells (β-cells), located within the pancreatic islets of Langerhans, are responsible for producing and releasing insulin and amylin, which play vital roles in regulating blood glucose levels.

13. Answer: b)

Explanation:
- The Piezoelectric Effect refers to the phenomenon where certain materials generate an electric charge when subjected to mechanical pressure or stress. This effect is commonly used in devices like microphones and lighters, where mechanical vibrations or pressure changes are converted into electrical signals or sparks.

14. Answer: a)

Explanation:
- The Federation of Indian Chambers of Commerce and Industry (FICCI) is India's largest and oldest apex business organization, established in 1927. It represents a wide spectrum of industries and serves as a platform for businesses to engage with the government, policymakers and other stakeholders.

15. Answer: a)

Explanation:
- The Ten Degree Channel separates the Andaman Islands from the Nicobar Islands in the Bay of Bengal, located between latitudes 10°N.

OPSC PRELIMS MOCK TEST
TEST ID – 41

Q1. Consider the following pairs of information:
1. Zacharias Janssen - All plant and animal tissues were composed of cells.
2. Robert Hooke – Cellulae.
3. Matthias Schleiden and Theodor Schwann- First compound microscope.
4. Eduard Buchner - Converted sugar to ethyl alcohol using yeast extracts.

How many of the above pair of information/s is/are correct?
A. Only one
B. Only two
C. Only three
D. All four

Q2. Consider the following pairs:
1. Blue Biotechnology- Marine and freshwater.
2. Green Biotechnology- Environment friendly solutions.
3. Red Biotechnology - Improve industrial processes and other production processes.
4. White Biotechnology- Manufacture pharmaceutical products.

How many of the above pair/s is/are correctly matched?
A. Only one
B. Only two
C. Only three
D. All four

Q3. Consider the following areas:
1. Medicine and health care.
2. Crop production and agriculture.
3. Food processing.
4. Environmental protection.

How many of the above area/s could be strengthened through Recombinant DNA technology?
A. Only one
B. Only two
C. Only three
D. All four

Q4. Gendicine is the first commercial gene therapy product approved for which disease?
A. Cystic fibrosis
B. Thalassemia
C. Parkinson's disease
D. Cancer

Q5. Ribosomes are composed of
A. only rRNA.
B. rRNA and proteins.
C. rRNA, proteins and DNA.
D. lipids, proteins and DNA.

Q6. Consider the following statements:
1. Kshatriya reaction against Brahmanical domination.
2. Spread of new agricultural economy.
3. Rigid caste system.

How many of the above is/are the reasons for the origin of Buddhism and Jainism?
A. Only one
B. Only two
C. All three
D. None

Q7. With reference to Harihara and Bukka consider the following statements:
1. They were the founders of the Vijaynagara Empire.
2. They were the contemporaries of Mohammad Bin Tughlaq.

Which of the above statements is/are not correct?
A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Q8. A term called "Balisadhaka" existed during the age of Budhha. It is associated with which of the following?
A. Governor of a state.
B. Village headmen.
C. A form of tax collector.
D. Rich Peasants.

Q9. Consider the following statements:
1. The Mongolian scribe brought into India a form of writing which came to be known as Kharosthi script.
2. Specific terms and phrases in Ashoka's edicts reflect Mongolian influence like the Mongolian term "dipi," the Ashokan scribe uses 'lipi.'

Which of the above statement/s is/are correct?
A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Q10. Consider the following statements with regards to Rudradaman I:
1. Rudradaman I was a prominent ruler of the Parthians.
2. The "Sudarshan" lake was repaired or renovated by him around 150 AD.
3. He issued the first long inscription in chaste Sanskrit.

How many of the above statement is/are correct?
A. Only one
B. Only two
C. All three
D. None

Q11. The famous 'Kadaram Campaign' was undertaken by which Indian Kingdom?
A. Chalukyas
B. Pandyas
C. Cholas
D. Hoysala

Q12. Consider the following pairs of travellers and rulers they visited:

Travelers	Rulers
1. Ibn-e-Batuta	Dev Ray I
2. Nicoloi Conti	Mohammad-Bin Tughlaq
3. Abdur Razzak	Dev Ray II
4. Eduardo Barbosa	Krishna Dev Ray

How many of the above statement/s is/are correct?
A. Only one
B. Only two
C. Only three
D. All four

13. Arrange the following organizations (Predecessors of the Indian National Congress) in chronological order:
1. Madras Native Association.
2. Bombay Presidency Association.
3. East India Association.
4. Bengal British Indian Society.

Select the correct answer using the code given below:
A. 2-3-4-1
B. 4-1-3-2
C. 4-3-1-2
D. 3-2-4-1

Q14. It is a descriptive linguistic treatise which covered the whole of Sanskrit language's grammar (including for the Vedic part) and also word formation rules in "sutra" format.

Which among the following literary works has been discussed in above passage?
A. Nyaya Sutra
B. Amarakosha
C. Astadhyayi
D. Rajatarangini

Q15. Which of the following is/are Chalcolithic site?
1. Bharatihuda
2. Eran
3. Tewar

Select the correct option using the code given below:
A. 1 and 3 only
B. 2 and 3 only
C. 2 only
D. 1, 2 and 3

Q16. Consider the following statements:
1. Asoka's Dhamma did not favour any particular religious doctrine.
2. In order to implement his Dhamma policies, Asoka recruited a new cadre of officials called Dhammamahamattas.

Select the correct answer using the codes given below:
A. 1 only
B. 2 only
C. Both 1 and 2
D. None

Q17. Consider the following statements regarding the Tatvabodhini Sabha:
1. It was founded by Keshub Chandra Sen.
2. It promoted a systematic study of India's past in the Bengali language.

Which of the above statements is/are correct?
A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Q18. With reference to British Education Policy during Indian Freedom Struggle, consider the following events:
1. Hunter Education Commission
2. Charles Wood Dispatch
3. Indian Universities Act
4. Sadler Commission

What is the correct chronological sequence of the above events (from first to last)?
A. 1-2-4-3
B. 2-4-1-3
C. 1-2-3-4
D. 2-1-3-4

Q19. Which of the following changes were

introduced by Tipu Sultan?
1. Kingdom was divided into provinces named Asafi Tukris.
2. Introduced a new land revenue system.
3. Stationed commercial agents at Muscat, Ormuz, Jeddah, Aden.

Select the correct option:
A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Q20. Consider the following statements with reference to Indian Music:
1. It is believed that after 13th century Indian musical system bifurcated.
2. Natya Shastra is an important landmark in the history of Indian music.
3. A characteristic contribution of India to musical rhythm is the tala.

Which of the statements given above are correct?
A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Q21. With reference to painting in Mughal period, consider the following statements:
1. Jahangir had great fascination for nature and took delight in the portraiture of birds, animals and flowers.
2. Under Shah Jahan portraiture was given considerable attention.
3. During Aurangzeb period painting declined.

Which of the statement/s given above is/ are correct?
A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Q22. With reference to the Gupta administration, which of the following is the correct order of decreasing ranking of the officials?
A. Kutumbis- Adhikarana-Uparikas
B. Uparikas- Kutumbis- Adhikarana
C. Adhikarana- Uparikas- Kutumbis
D. Uparikas- Adhikarana- Kutumbis

Q23. Who among the following said that "The fight that was commenced in 1920 is a fight to the finish, whether it lasts one month or one year or many months or many years?"
A. Motilal Nehru
B. Mahatama Gandhi
C. Jawaharlal Nehru
D. Acharya Narendra dev

Q24. Consider the following statements with respect to Colombo process:
1. India has assumed the Chair of the Colombo Process for the term 2024-26, marking the first time India has held this position since the inception of the Process.
2. The Colombo Process is a Regional Consultative Process involving migrant worker origin countries from South and Southeast Asia.
3. The Process serves as a forum for the exchange of best practices on overseas employment and is binding, with decision-making by consensus.

How many of the above statements is/are correct?
A. Only one
B. Only two
C. All three
D. None

Q25. Consider the following statements:
1. Nipah virus can be transmitted to humans from animals.
2. Nipah virus can be transmitted to humans from contaminated foods.
3. Nipah virus can be transmitted directly from human-to-human.

How many of the above statements is/are not correct?
A. Only one
B. Only two
C. All three
D. None

Q26. Consider the following countries:
1. Australia
2. India
3. Japan
4. United States

How many of the above are the partner countries in Indo-Pacific Economic Framework for Prosperity (IPEF)?
A. Only one
B. Only two
C. Only three
D. All four

Q27. Which of the following country does not share coastline with Indian Ocean?
A. Mozambique
B. Tanzania

C. Kenya
D. Zimbabwe

Q28. Consider the following statements:
1. The shadow zone of P-wave is much larger than that of the S-waves.
2. A zone between 105° and 145° from the epicenter was identified as the shadow zone.
3. The entire zone beyond 105° does not receive S- waves.
4. There exist some specific areas where the waves are not reported such a zone is called the 'shadow zone'.

How many of the above statement/s is/are not correct about the shadow zone?
A. Only one
B. Only two
C. Only tree
D. All four

Q29. Which of the following was/were the objective of the European Union?
A. Establishing an economic and a monetary union
B. Implementing a common foreign and defense policy
C. Developing relations in the spheres of' home affairs and justice
D. All of the above

Q30. With reference to Shanghai Cooperation Organisation, consider the following statements:
1. The Executive Committee of the Regional Anti- Terrorist Structure (RATS) of the Shanghai Cooperation Organisation (SCO) is the permanent body.
2. "Kashi" in India has been designated as the first cultural capital of the SCO.
3. India joined as full member in 2017 while Pakistan is a observer state of SCO.

Which of the above statement/s is/are not correct?
A. 1 and 2 only
B. 2 only
C. 2 and 3 only
D. 3 only

Q31. The Pantanal is the world's largest tropical wetland area spreading over?
A. Argentina, Uruguay and Brazil
B. Paraguay, Bolivia and Brazil
C. Peru, Bolivia and Brazil
D. Peru, Venezuela, Brazil

Q32. Consider the following sources:
1. Volcanic eruption.
2. Death of an organism.
3. Burning of fossil fuel.
4. Himalayan Geothermal Springs.

Which of the above are contribute to out flux of carbon in carbon cycle?
A. 1, 2 and 3 only
B. 1 and 3 only
C. 1, 3 and 4 only
D. 1, 2 ,3 and 4

Q33. Consider the following features Savanna or Sudan climate:
1. It is a transitional type of climate.
2. It has extreme diurnal range of temperature.
3. It is typified by tall grass and short trees.

Which of the statement/s given above is/are correct?
A. 1 and 2 only
B. 1 and 3 only
C. 3 only
D. 1, 2 and 3

Q34. Consider the following Pairs

RIVER	TRIBUTARY
1. Kaveri	Penganga
2. Krishna	Kabini
3. Godawari	Koyna
4. Mahanadi	Hasdeo

How many of the above is/are correctly matched?
A. Only one
B. Only two
C. Only three
D. All four

Q35. Consider the following countries:
1. Chile
2. Russia
3. Indonesia
4. Malaysia

How many of the above countries are major import source of lithium to India?
A. Only one
B. Only two
C. Only three
D. All four

Q36. The Military Exercise Steadfast Defender 2024 is one of the largest military exercises in the world. It is associated with which of the following organization?
A. North Atlantic Treaty Organisation.
B. European Union.

C.   Quadrilateral Security Dialogue.

D.   Collective Security Treaty Organization.

Q37. Which of the following Commission/ Committee suggested for establishing a permanent Inter-State Council as an independent national forum for consultation with a mandate well defined in accordance with Article 263 of the Constitution of India?

A.   State Reorganisation Commission (1953)

B.   Rajamannar Committee (1969)

C.   Sarkaria Commission (1983)

D.   Punchhi Commission (2007)

Q38. Consider the following statements:

1.   The first scientific base station in Antarctica was Dakshin Gangotri.

2.   Dakshin Gangotri is now being used as a supply base and transit camp.

3.   The Maitri station is manned throughout the year for scientific activities.

How many of the above statements about India's scientific and research mission in Antarctica is/are correct?

A.   Only one

B.   Only two

C.   All three

D.   None

Q39. The correct sequence of the Great Lakes of the USA from east to west is

A.   Huron - Michigan - Ontario - Superior – Erie.

B.   Superior- Ontario - Erie - Michigan – Huron.

C.   Ontario - Erie - Huron - Michigan – Superior.

D.   Erie - Huron - Michigan - Ontario – Superior.

Q40. Consider the following statements:

1.   As per law, the Disaster Response Fund exists at both National and State levels.

2.   Any person or institution can contribute to the National Disaster Response Fund as per the Disaster Management Act, 2005.

Which of the statement/s given above is / are correct?

A.   1 only

B.   2 only

C.   Both 1 and 2

D.   Neither 1 nor 2

Q41. Consider the following statements with relation to Red Corner Notice.

1.   It alerts the police forces across the world about fugitives who are wanted internationally.

2.   Interpol issues a Red Notice at the request of a member country but the country which issues the request needs to be the home country of the fugitive.

Which of the above statements is/are correct?

A.   1 only

B.   2 only

C.   Both 1 and 2

D.   Neither 1 nor 2

Q42. With reference to India's Five-Year Plans, which of the following statement/s is/are correct?

1.   The first five-year plan accorded high priority to industrialisation, and especially to the development of basic and heavy industries.

2.   The Second Five-Year Plan was based on the ideas of Prasanta Chandra Mahalanobis.

3.   There has never been a break in India's Five- Year Plans.

Select the correct answer using the code given below:

A.   1 and 2 only

B.   2 only

C.   3 only

D.   1, 2 and 3

Q43. With reference to the Constitution of India, consider the following statements:

1.   Disputes relating to the election of member of Parliament and members of state legislation comes under the Original jurisdiction of High Courts.

2.   Disputes relating to Inter-state water disputes falls under the original jurisdiction of the Supreme Court of India.

Which of the statement/s given above is / are correct?

A.   1 only

B.   2 only

C.   Both 1 and 2

D.   Neither 1 nor 2

Q44. Which among the following is not a discretionary power of the Governor of a state under ordinary circumstances?

A.   Reservation of a bill for the consideration of the President.

B.   Recommendation for the imposition of the President's Rule in the state.

C.   Seeking information from the Chief Minister with regard to legislative matters

of the state.

D. The power to summon and dissolve the House of the State Legislature.

Q45. In a Democratic country like India, the horizontal sharing of power between the Legislature, Executive and Judiciary is a desirable feature. In light of this, consider the following statements:
1. Sharing of power is the basic spirit of a democratic politics.
2. It helps in reducing conflicts between socially and economically diverse citizen groups.
3. It helps in strengthening the unity of the country.

Which of the above statements is/are support sharing of power as a desirable feature?
A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Q46. Consider the following statements with reference to Contempt of Court:
1. The Constitution empowers Supreme Court to punish contempt of itself.
2. A person shall not be guilty of contempt of court for publishing any fair comment on the merits of any case which has been heard and finally decided.

Which of the above statement/s is/are correct?
A. 1 only
B. 2only
C. Both 1 and 2
D. Neither 1 nor 2

Q47. Right to Property ceased to be Fundamental Right during the Prime Ministership of:
A. Morarji Desai.
B. Indira Gandhi.
C. Charan Singh.
D. V P Singh.

Q48. With reference to Panchayat Extension to Scheduled Areas (PESA) Act, consider the following statements:
1. It was enacted in 1996 which extends provisions of the Panchayats, as given in Part IX of the Constitution, to the Fifth Schedule Areas.
2. Ministry of Rural development has the power to approved or disapprove the extension of PESA provisions to the Sixth Scheduled Areas.
3. Under it, every village shall have a Gram Sabha consisting of persons whose names are included in the rolls for the Panchayat at the village level.

Which of the statements given above are correct?
A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Q49. Consider the following cases:
1. Only while a proclamation of Emergency is in operation in the concerned state.
2. If the Council of States has declared by resolution supported by not less than two-thirds of the members present and voting that it is necessary or expedient in the national interest.
3. For implementing any decision made at any international conference, association or other body.

In which of the above circumstances the Parliament can legislate on state subjects?
A. 1 and 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Q50. How many of the following is/are the feature/s of the Cabinet Committees?
1. They are listed in the Constitution.
2. They are set up by the Prime Minister.
3. The non-Cabinet Ministers are not debarred from their membership.

Select the correct answer using the code given below:
A. Only one
B. Only two
C. All three
D. None

Q51. With reference to New Development Bank (NDB), consider the following statements:
1. NDB has more than 50 member nations.
2. China has more shareholding in NDB as compared to India.
3. The headquarters of the Bank is located in Shanghai.

Which of the statement/s given above is/are correct?
A. 1 and 2 only
B. 2 and 3 only
C. 3 only
D. 1, 2 and 3

Q52. The term 'Swap Auction' refers to:

A. A disinvestment plan of Government of India regarding Central Public Sector Enterprises.

B. A scheme of RBI for reworking the financial structure of big corporate entities facing genuine difficulties.

C. A type of liquidity adjustment facility by RBI.

D. A scheme of RBI to check rising Non Performing Assets (NPA) of public sector banks.

Q53. With reference to the Vansadhara River consider the following statements:

1. It originates from the flanks of the Lingarajhills of the Eastern Ghats in Kalahandi district.

2. The river traverses a total distance of 239 Kms before its outfall into the Chilika Lake in Ganjam District.

Which of the above statement/s is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

Q54. With reference to Keynesian multiplier theory, which of the following statement is correct?

A. The magnitude of the multiplier is inversely related to the marginal propensity to consume.

B. It involves reserve requirements established by the Central Banks.

C. The economy will flourish the more the government spends.

D. The multiplier increases with the population of the country.

Q55. Which of the following is not the criteria of identifying PVTG in India?

A. Comparative isolation from a town/urban center.

B. Low level of literacy.

C. Pre-agricultural level of technology.

D. A declining or stagnant population.

Q56. With reference to the Constitution of India, who will determine the territorial areas of the electoral constituencies throughout the country on the basis of the Delimitation Commission Act of Parliament?

A. Both Lok Sabha and Rajya Sabha

B. Only Lok Sabha

C. President

D. Election Commission

Q57. With reference to the Legislative Council of a State in India, consider the following statements:

1. State Legislative Council can be created by the Parliament provided the State Legislative Assembly passes a resolution with a simple majority.

2. The Actual Strength of the Legislative Council is fixed by the Parliament.

Which of the statement/s given above is / are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

Q58. How many of the following statements is/are correct?

1. Dugongs are warm-blooded animals with hair and vertebrates.

2. Dugongs are listed as Vulnerable on the IUCN Red List of Threatened Species.

3. Due to its need on seagrass ecosystems for survival, the dugong is confined to the coastal areas that sustain seagrass meadows.

Select the correct answer using the code given below:

A. Only one

B. Only two

C. Only three

D. None

Q59. The concept of "reserve currency" refers to:

A. A currency held in reserve by a country for emergency use

B. A currency widely used in international trade and held as part of foreign exchange reserves by many countries

C. A currency used exclusively in international financial transactions between central banks

D. A currency that is subject to exchange controls and not freely convertible

Q60. Consider the following statements regarding UDGAM Portal.

1. It has been developed by the SBI.

2. It facilitates the registered users of SBI to search unclaimed deposits/accounts across all the branches of SBI in one place in a centralised manner.

Which of the statements given above is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2
D. Neither 1 nor 2

Q61. Consider the following statements with reference to Medical Termination of Pregnancy in Indian context:
1. Unmarried women have the same right to abortion as married women.
2. Under the MTP Act, rape includes marital rape as well.

Which of the above statement/s is/are correct?
A. 1only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor2

Q62. Consider the following statements
1. The Chilika Lake is brackish water lagoon located in the coastal line on southern part of the Odisha.
2. Anshupa is a brackish water lake located in Athagarh of Cuttack district.
3. Kanjia Lake is a fresh water lake located in Bhubaneswar.

How many of the above statement/s is/are correct?
A. Only one
B. Only two
C. All three
D. None

Q63. What is the objective of Stratospheric Sulfur Injection, so far untested geo-engineering technique?
A. Artificial homogeneous precipitation.
B. Shifting Green House Effect from Troposphere to Stratosphere.
C. Scattering of sunlight to reduce global temperature.
D. Enhancing UV absorption ability of the Stratospheric Ozone.

Q64. With reference to Ganges river dolphins consider the following.
1. The Ganges river dolphin is a blind dolphin that can only live in freshwater.
2. They hunt by producing ultrasonic noises that ricochet off fish and other prey, allowing them to mentally "see" an image.
3. They're usually encountered alone or in tiny groups, and a mother and calf will usually travel together.
4. They are found in India, Bangladesh and Nepal.

How many of the above statements is/are correct?

A. Only one
B. Only two
C. Only three
D. All four

Q65. With reference to Konark Sun Temple consider the following statements
1. The Sun Temple in Konark was built by King Narasmiha Deva of the eastern Ganga Dynasty.
2. The temple is made of three types of stone namely Chlorite, Laterite and Khondalite.

Which of the above statement/s is/are not correct?
A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Q66. A species recently discovered called "Begonia Narahari" is associated with which of the following?
A. flowering plant species
B. Reptile species
C. Amphibian species
D. Cactus plant species

Q67. The term "RAD51" often mentioned in news is associated with which of the following?
A. Gene
B. Vaccine
C. Celestial body
D. GM crop

Q68. Arrange the following temples in chronological order on the basis of their construction period.
1. Lingaraja Temple.
2. Jagannath temple.
3. Sun Temple at Konark.
4. Rajarani Temple.

Choose the correct answer using the codes given below
A. 1-2-3-4
B. 1-2-4-3
C. 1-3-4-2
D. 4-1-2-3

Q69. Consider the following personalities:
1. Samuel 'O' Donell.
2. H.M.Mehta.
3. T.Phookan.
4. Gopabandhu Das.

How many of the above person/s was/were members of the Odisha Boundary Committee?
A. Only one
B. Only two

Content

C. Only three
D. All four

Q70. Consider the following:
1. Carbon tetrachloride
2. Methyl chloroform
3. Halon.
4. Bromochloromethane.

Which of the above are the reasons for the depletion of ozone when released into the atmosphere?
A. 1 and 2 only
B. 2, 3 and 4 only
C. 1 and 4 only
D. 1, 2, 3 and 4

Q71. Which of the following most appropriately defines the concept of 'Human Development'?
A. Elimination of poverty in a country.
B. Rapid economic growth witnessed in a country.
C. Enlarging the range of people's choices.
D. Availability of good health and educational facilities.

Q72. Who among the following is known as "Garjat Gandhi" in the Garjats?
A. Sarangadhar Das
B. Chandra Sekhar Behera
C. KalindiCharanaPanigrahi
D. Nilakantha Das

Q73. Consider the following statements regarding the Minor Forest Produce (MFP) in India:
1. MFP is defined under 'The Indian Forest Act,1927'.
2. The Minimum Support Price (MSP) of MFP is determined by the Ministry of Tribal Affairs.
3. The MSP is revised once in every 3 years.

Which of the statement/s given above is/are correct?
A. 1 and 3 only
B. 2 and 3 only
C. 3 only
D. 1, 2 and 3

Q74. Consider the following statements about Ways and Means Advances (WMA):
1. The RBI Act, 1934 authorizes RBI to lend to both Central and state governments under WMA scheme.
2. The limits for WMA for Centre are solely decided by the government of India.

Which of the statement/s given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Q75. "Gyan Sanskar" Program was recently inaugurated by Odisha's Chief minister. It is associated with which of the following?
A. To make aware people in rural areas about communicable diseases through community health programs.
B. To equip newly elected MLAs with the knowledge and skills necessary to effectively represent their constituents.
C. To set up state assembly museum in state capital for to development of political awareness among school children.
D. Tribal development through education.

Q76. Consider the following:
1. Prime Minister
2. Speaker of Lok Sabha
3. Leader of opposition in Lok Sabha
4. Deputy speaker of Rajya Sabha
5. Chief Justice of India

Selection of chairperson and members of Lokpal through a selection committee consisting of how many of the above mentioned persons?
A. Only Two
B. Only three
C. Only four
D. All five

Q77. Consider the following statement with reference to British Currency Policy in Odisha.
1. In Orissa Kauri currency was prevalent during the Maratha period.
2. The British allowed payment in Kauri currency till the end of 1909.

Which of the above statement/s is/are correct?
A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Q78. Consider the following pairs of Rabi crops and their largest producing Indian states:
1. Wheat - Madhya Pradesh
2. Barley – Haryana
3. Mustard – Rajasthan
4. Oats - Punjab

How many of the above pairs are correctly matched?
A. Only one
B. Only two

C. Only three
D. All four

Q79. Which of the following scenarios best describes a Giffen Good?
A. A rise in the price of a luxury car brand leads to increased demand due to its perceived exclusivity.
B. An increase in the price of bread, a staple food, leads to a higher quantity demanded.
C. A fall in the price of electronic gadgets causes consumers to buy more due to a general increase in affordability.
D. A decrease in the price of a substitute good causes consumers to switch their demand to that good.

Q80. In the context of the history of Odisha the term "Amlas" is associated with which of the following?
A. Revenue collector.
B. Peasant.
C. Carpenter.
D. filigree worker

Q81. Consider the following pairs:

Islands	Sea/Oceans
1. Melos	Aegean Sea.
2. Madeira	Azov Sea.
3. Sicily	Mediterranean Sea.
4. Hawaii	Pacific Ocean.
5. Hvar	Aral Sea.

Which of the pair given above are correctly matched?
A. 1, 2 and 4 only
B. 1, 3 and 4 only
C. 2 and 5 only
D. 1, 2, 3, 4 and 5

Q82. Consider the following pairs:

Lakes	States
1. Tsomgo Lake	Arunachal Pradesh
2. Kanwar lake	Jharkhand
3. Sambhar Salt Lake	West Bengal
4. Loktak Lake	Manipur

Which of the pairs given above are not correctly matched?
A. 1, 2 and 3 only
B. 1, 3 and 4 only
C. 2 and 3 only
D. 3 and 4 only

Q83. Which one of the following statements is incorrect regarding the climatic impact of the Western Ghats?
A. The Western Ghats act as a barrier to the southwest monsoon winds, causing heavy rainfall on the windward side.
B. The eastern slopes of the Western Ghats receive more rainfall than the western slopes.
C. The region plays a crucial role in regulating the climate of the Deccan Plateau.
D. The Western Ghats have a significant impact on the monsoon patterns in peninsular India.

Q84. The Kailashnath Temple at Ellora is being considered as the greatest achievement in architecture of:
A. Chola
B. Chera
C. Rashtrakuta
D. Pandyas

Q85. During the winter season, when we see the lakes, we find that the upper layer is frozen. However, the water that is present below the frozen surface remains liquid. Which one of the following is the reason for this phenomenon?
A. Ice is denser than water
B. Specific Heat Capacity of water
C. Ice is a bad conductor of heat
D. Anomalous expansion of water

Q86. With reference to the Anglo-Maratha Wars, consider the following statements:
1. Under the treaty of Purandhar, Raghunathrao ceded the territories of Salsette and Bassein to the English.
2. The Treaty of Wadgaon forced the Bombay government to relinquish all territories acquired by the English since 1775.
3. Under the treaty of Bassein, the Peshwa agreed to surrender the city of Surat.

Which of the statements given above is/are correct?
A. 2 only
B. 2 and 3 only
C. 1 and 3 only
D. 1, 2 and 3

Q87. Which one of the following is the most salt-tolerant crop?
A. Sugar cane
B. Grams
C. Sesame
D. Sugar beet

Q88. In India, which of the following crops are mostly grown in the soil that is formed after weathering of Basalt rocks?
A. Cotton
B. Rice
C. Rubber
D. Tapioca

Q89. Consider the following worms:
1. Green Worm.
2. African Nightcrawler.
3. Tiger Worm.

Which of the above organisms are capable of producing —Vermicompost?
A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Q90. Consider the following statements about —Compressed Natural Gas (CNG):
1. CNG is lighter than air.
2. CNG has a higher auto-ignition temperature than petrol.
3. CNG is much safer than petrol because of its narrow range of flammability.
4. Petrol has lesser antiknock power than CNG.

Which of the statements given above are correct?
(a) 1 and 2
(b) 1 and 4
(c) 1, 2 and 4
(d) 1, 2, 3 and 4

Q91. Which of the following properties of the soil cannot be altered by soil management practices?
1. Soil Structure.
2. Soil Colour.
3. Soil Texture.
4. Soil Porosity.

Select the correct answer using the code given below:
A. 1, 2 and 4
B. 3 only
C. 2 and 4
D. 1 and 4

Q92. Consider the following pairs of National parks and states.

National Parks	State
1. Jim Corbett National Park	Uttarakhand
2. Gir National Park	Madhya Pradesh
3. Manas National Park –	Arunachal Pradesh
4. Keoladeo National Park –	Rajasthan

How many of the above pairs are correct?
A. Only one
B. Only two
C. Only three
D. All four

Q93. Arrange the following dams in the Cauvery River basin in the order from the upstream to downstream.
1. Hemavathi dam
2. Harangi Dam
3. Krishna Raja Sagar Dam
4. Mettur Dam

Select the correct answer using the code given below.
A. 1 – 2 – 3 – 4
B. 1 – 2 – 4 – 3
C. 1 – 4 – 3 – 2
D. 2 – 4 – 1 – 3

Q94. Which one of the following statements is correct about an Administrator of the Union Territory of India?
A. Only the serving or retired officers from the All- India Services can be appointed as an Administrator.
B. An administrator of a Union Territory is an agent of the President and appointed by the President.
C. The Administrator enacts the required laws for that Union Territory which lacks legislative assembly.
D. Every Union Territory must have an exclusive administrator for that Union Territory.

Q95. Consider the following statements about "Seaweeds":
1. Seaweeds remove more Carbon from the water than Mangroves and Salt Marshes.
2. Seaweed farms can help to combat local impacts of ocean acidification.
3. Seaweeds purify the water but do not remove Nitrogen and Phosphorus from it.

Which of the statements given above is/are correct?
A. 1 and 2 only
B. 2 and 3 only
C. 1 only
D. 1, 2 and 3

Q96. In order to include any Schedule after the Twelfth Schedule into the Indian Constitution, which type of majority is required by the

Parliament?

A.   Simple majority alone is enough
B.   It requires a special majority of both Houses of the Parliament
C.   It is necessary for obtaining the state ratification after the Special majority of the Parliament
D.   It depends upon the matter included in the schedule of the proposed amendment

Q97. The basin of Talcher coalfield mainly occupies by which river?

A.   Subarnarekha River
B.   Brahmani River
C.   Baitarani Rive.
D.   Mahandi River

Q98. With reference to Gotipua Dance consider the following statements:

1.   The dance is executed by a group of boys who perform acrobatic figures inspired by the life of Radha and Krishna.
2.   The Gotipua dance is in Mahari style, but their technique, costumes and presentation differ from those of the Odissi.

Which of the above statement/s is/are correct?

A.   1 only

B.   2 only
C.   Both 1 and 2
D.   Neither 1 nor 2

Q99. The original chitrakaras of Pattachitra painting usually come from which district of Odisha?

A.   Puri
B.   Ganjam
C.   Gajapati
D.   Khordha

Q100. Consider the following statements with regards to first Pre-Independent Assembly of Odisha of 1937.

1.   The strength of the Odisha Legislative Assembly was fixed at 60 and there was no provision of nomination members.
2.   The Ganatantra became the majority party in the legislature to form a government in Odisha.

Which of the above statement/s is/are not correct?

A.   1 only
B.   2 only
C.   Both 1 and 2
D.   Neither 1 nor 2

ANSWERS

1. B	11. C	21. D	31. D	41. B	51. C	61. B	71. A	81. A	91. B
2. B	12. B	22. B	32. D	42. A	52. A	62. C	72. B	82. C	92. A
3. D	13. B	23. B	33. A	43. D	53. C	63. D	73. A	83. C	93. B
4. D	14. C	24. D	34. B	44. D	54. A	64. D	74. B	84. D	94. A
5. B	15. D	25. D	35. A	45. C	55. D	65. A	75. C	85. B	95. D
6. C	16. C	26. D	36. C	46. A	56. B	66. A	76. A	86. D	96. B
7. D	17. B	27. A	37. C	47. C	57. C	67. D	77. B	87. A	97. A
8. C	18. D	28. D	38. C	48. D	58. B	68. C	78. B	88. C	98. A
9. D	19. D	29. D	39. C	49. B	59. D	69. D	79. A	89. D	99. C
10. B	20. D	30. B	40. A	50. C	60. C	70. C	80. B	90. B	100. C